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# USSR Report

AGRICULTURE

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25 October 1984

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## MAJOR CROP PROGRESS AND WEATHER REPORTING

### EQUIPMENT SERVICES IN BEHALF OF GRAIN HARVEST DISCUSSED

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 21 Sep 84 p 1

/Article by V. Kulemzin, L. Urmanova and S. Kozlov, engineers of USSR Goskomsel'khoztekhnika: "All Grain Deserves Equal Care"]

/Excerpts/ The harvest work is continuing in the virgin lands. At the present time, the farmers, machine operators and all workers attached to the agroindustrial complex share the same concern -- to harvest the crops in a more rapid manner. The grain growers are receiving a great amount of assistance from their chief partners -- workers attached to Goskomsel'khoztekhnika. During the busy harvest period, in addition to joining in the work regime of the sovkhozes and kolkhozes, they are also furnishing technical assistance, operating the steering wheels of combines and participating in the work of transporting the crop. Today there are more than 70 harvesting-transport complexes of Sel'khoztekhnika associations, including 824 combines and 356 motor vehicles, in operation out on the fields in the northern oblasts of Kazakhstan.

Five years ago, harvesting teams consisting of 2-3 combines were created for the very first time in the Tselinograd Oblast Goskomsel'khoztekhnika Association. Although the assistance which they furnished was not very great, nevertheless the undertaking was warmly received in the rayons. This year there are 13 harvesting-transport complexes equipped with a powerful set of equipment items and skilled personnel in operation out on the oblast's fields. These detachments are headed by individuals who are both reliable and conscientious.

A harvesting-transport complex of the local Sel'khoztekhnika, headed by A. Gekk, worked for 18 days at the Astrakhanskiy rayspetskhozob'yedineniye. It threshed grain from an area of 3,300 hectares.

"I will state quite frankly that we would have experienced difficulties were it not for the assistance provided by the harvesting-transport complex of Sel'khoztekhnika" stated the director of the rayspetskhoz F. Klappordt, "Judge for yourself: the sowing area at our farm is 9,570 hectares. The complex harvested more than one third of this area."

"In forming up the complexes" stated the chairman of the oblsel'khoztekhnika V. Shlyakhtich, "in addition to striving to lend assistance in harvesting the crop, we also tried to carry out another important task -- to show how the equipment can be utilized in a highly productive manner. All of our combine operators achieved higher outputs than the sovkhoz and kolkhoz operators. We have an advantage: the principal portion of our combine operators consists of fitters, repair workers and engineers. Having worked in the fields, they possess a better knowledge of the weak aspects of the machines and thus they can carry out high quality repairs on the equipment."

In all, the oblast's Sel'khoztekhnika machine operators harvested 36,000 hectares of grain this year and obtained 10,000 tons of grain.

And in Kokchetav Oblast hundreds of machine operators from rayon associations of Goskomsel'khoztekhnika are working side by side with sovkhoz combine operators. They sent 256 Niva combines, approximately 100 motor vehicles and many items of technical servicing equipment to aid in carrying out the harvest work. And it bears mentioning that the partners are working equally as well.

A competition has been organized among the harvesting-transport complexes of Sel'khoztekhnika. Since the beginning of the harvest campaign, the machine operators of the Chkalovskiy and Kzyltuskiy raysel'khoztekhnika's have been the leaders in this competition.

The machine operators of the Kzyltu Sel'khoztekhnika Association are employing both direct combining and two-stage harvesting. Driver V. Krasnov of the Kokchetav Transsel'khoztekhnika Enterprise delivered more than 600 tons of grain to the threshing floor.

"Commencing with the first year that the agroindustrial association was created, we have been participating actively in the harvest campaign," stated the chairman of the Pavlodar Oblsel'khoztekhnika Ya. Raysikh; "Initially feed harvesting complexes were created and now we have harvesting-transport complexes. At the present time, 13 of our complexes consisting of 128 combines and 80 motor vehicles are in operation out on the oblast's fields. Initially, a question arose -- where could enough people be obtained to staff each unit with two combine operators? Tractor operators were also needed for removing the straw and grain. This problem was solved by drawing upon the personnel in the departments of Sel'khoztekhnika and the workshops. Only a minimum number of personnel were left in these areas."

The work of the harvesting-transport complex of the Kachirskiy raysel'khoztekhnika was organized in an exemplary manner. Here 18 combines with 10 sideboard trucks and two mobile workshops were combined into a mobile detachment which was quickly sent into the busiest sectors of the harvest campaign. At the Kalinovskiy Sovkhoz, it completed its crop harvesting work on an area of 3,000 hectares in just 12 working days and obtained 8-9 quintals of grain per hectare. The collective of the complex undertook to harvest the grain crops from an area of 6,100 hectares and to obtain 4,500 tons of grain.

Sel'khoztekhnika combines are presently in operation in all 12 of the oblast's rayons. They must harvest grain crops from an area of 45,000 hectares.

One of the best complexes in North Kazakhstan Oblast was formed this year at the Bulayevskiy raysel'khoztekhnika. It was divided up into two detachments in order to provide greater mobility -- some of the combines and motor vehicles are operated at the Suvorovskiy Sovkhoz and the others -- at the Konyukhovskiy Sovkhoz.

The detachment sent to the Suvorovskiy Sovkhoz has already threshed 80 percent of the grain crop sowings of the second section. It was the first in the rayon to be awarded the challenge red banner.

I wish to mention briefly the manner in which the preparation of the equipment for field operations was organized throughout the oblast. The Timiryazevskiy Association turned out to be one of the best in this regard. One sector of this association alone, a unit headed by M. Sintsov, has assembled and adjusted 1,040 agricultural machines since the beginning of the year. The coefficient of technical readiness of the combine pool on the eve of the harvest operations was 87 percent, compared to 82 percent last year.

The association engineers are providing the farm machine operators with a great amount of assistance in solving their technical problems. Each day they go out to the farms so that they can acquaint themselves first hand with the reasons for equipment breakdowns and also to show how to use the new items of equipment correctly. For example, with their assistance a new method for hermetically sealing harvester-stackers was introduced successfully into operations at a majority of the farms.

The service for the guaranteed supply of spare parts is troubled by many concerns at the present time. It happens that combines lie idle owing to minor problems; there are no spare parts either at the sovkhov warehouse or at raysel'khoztekhnika. At this point a dispatcher, using a card index, discovers that the needed part is at a particular sovkhov. An engineer proceeds there, obtains the part and delivers it to the unit having a need for it.

The harvest campaign is in full swing in the virgin land area. The partners of the grain growers are doing everything possible in the interest of accelerating the harvesting of the crops.

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## MAJOR CROP PROGRESS AND WEATHER REPORTING

### GRAIN TRANSPORT ORGANIZATION IN NORTH KAZAKHSTAN

Moscow TRUD in Russian 11 Sep 84 p 1

Article by V. Bugayev and V. Gafiatulin, North Kazakhstan Oblast: "Skillful Maneuvering of Transport"

Text On the eve of the busy harvest season the machine operators are usually bothered by the question as to exactly how the transporting of the grain from the fields to the threshing floor is to be organized. Indeed, the productivity of the harvesting units and the quality and preservation of the crop are dependent upon efficient transport operations. During the tense days of the harvest season, the combine operators are often idle as they wait for the grain to be unloaded from the hoppers.

This problem was resolved long ago in Sergeyevskiy Rayon. Based upon the initiative displayed by a local motor transport enterprise, in collaboration with scientists from the capital of Kazakhstan, the multiple-trailer method for transporting grain from the fields to the threshing floor was introduced into operations on farms throughout the rayon for the very first time. The clever term "multiple-trailer" is used to describe a surprisingly simple and at the same time a highly efficient method for servicing the harvesting units. Large and roomy trailer-wagons are positioned about a field. Just as soon as they are filled, a tractor moves them off to the side of a road where a large cargo truck is waiting.

"At the present time, we cannot imagine how it is possible to work otherwise," stated the 1st secretary of the Sergeyevskiy Rayon Party Committee, Hero of Socialist Labor Ye. Shaykin; "The collective contract has made it possible for us to introduce into operations on an extensive scale the batch method, with the fixed placement of transport equipment out on a field. The party and professional trade union organization have introduced this new method in an active and persistent manner."

We would like to add to this the fact that the progressive methods have been introduced in all areas where the motor vehicles of the North Kazakhstan Freight Motor Transport Administration are being employed. And here proper credit must be given to the oblast's professional trade union committee for motor transport and highway workers, which carried out a great amount of organizational and explanatory work mainly among the professional trade union activists. Each year, prior to the harvest campaign, the presidium listens to



the reports by leaders on the readiness of the motor transport enterprises for transporting the crops.

The Sergeyevka ATP /motor transport enterprise/ has almost 250 trucks. At the present time, 160 of them are being employed on farms and only one third of them are engaged in transporting the grain from the fields to the threshing floor. Earlier this number of transport vehicles serviced only 2-3 sovkhoses and today -- seven.

We observed the progressive methods for transporting grain from the fields to the threshing floor being used on a number of farms in Karaganda, Tselinograd, Kokchetav and other oblasts. However, throughout Kazakhstan on the whole, only a negligible portion of the harvesting units is being serviced by means of the multiple-trailer and batch method. Thus, prior to this current harvest campaign, the ministries of agriculture, procurements and motor transport conducted a seminar in Tselinograd Oblast. The leaders of farms were acquainted in detail with the progressive technology for transporting grain and the work of a multiple-trailer and the batch method were demonstrated in the field. And yet no substantial improvements have been noted. Apparently, some of the economic executives are too conservative in their thinking: they simply maintain that it is better to request the use of more motor vehicles.

The chief of the Sergeyevka ATP, Nikolay Semenovich Rossolenko, an active supporter of multiple-trailer shipments, told us: "During the early part of the summer, I visited a number of farms in the southern regions of the republic. At one of the sovkhoses I examined the working plan for harvesting the crop and was astonished: the leaders had assigned 40 motor vehicles for servicing 25 combines. Using the same number of vehicles together with trailers, we can service four large grain sovkhoses."

There is no limit to creative endeavors. Commencing last year, at the Furmanovskiy Sovkhoz in North Kazakhstan Oblast, all of the grain is being transported from the fields to the threshing floor by Kirovets machines with trailers. The transporting of grain at the Yergol'skiy Sovkhoz in Tselinograd Oblast is organized in a similar manner. Using their own resources, the sovkhos's skilled craftsmen created 50 tractor wagons with a cargo capacity of 26 tons. The Vedenovskiy Sovkhoz in Kokchetav Oblast went even further. For the third year now, the transporting of grain and the laying in of silage and haylage have been carried out here with no need for additional motor transport vehicles. Here the grain is also transported from the fields to the threshing floor by Kirovets machines with trailers. And this is producing fine results. When the usual technology is employed, 30-40 motor vehicles are required for transporting the grain from the fields and yet four Kirovets machines with trailers can carry out this work at the sovkhos. The delivery of a ton of grain over a distance of 10-15 kilometers to a threshing floor costs 1 ruble and 6 kopecks by motor vehicle and by tractor -- 32 kopecks.

There is still a shortage of motor transport vehicles during the busy harvest period. During the season of mass shipments of crops, the sovkhoses and kolkhozes receive assistance from specialized transport enterprises and they are supplied with motor vehicles by various organizations and institutes, which at times are located thousands of kilometers from the harvesting sites.

Each year, in Kazakhstan, up to 83,000 additional motor vehicles are sent to aid in the work being carried out in the rural areas. The relocation of each 1,000 such vehicles costs the state from 500 to 1 million rubles.

These expenses can be greatly reduced, as borne out by the experience of those leading sovkhozes and kolkhozes and also motor transport enterprises which are employing the progressive method for transporting grain from the fields to the threshing floor.

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## POST HARVEST CROP PROCESSING

### MEASURES FOR REDUCING LOSSES

Moscow SAKHARNAYA PROMYSHLENNOST' in Russian No 8, Aug 84 pp 2-4

/Article: "Daily Attention To Reducing Losses in Raw Materials and Sugar"

/Text/ The economic policies of our party are based upon economies, thrift and the use of an economic approach in the carrying out of work. The need for making efficient use of all available resources was pointed out during the 26th CPSU Congress and the December (1983) and April (1984) plenums of the CPSU Central Committee. Specific measures must be developed and implemented at each enterprise and construction project and on each farm aimed at reducing labor expenditures and expenditures of raw materials, other materials and fuel and energy resources. It is precisely on the basis of such economic management of affairs that many enterprises throughout the country are organizing their work.

Many examples of zealous management are to be found in the sugar industry. Importance is being attached at the present time to ensuring that all collectives carry out a creative search for methods for intensifying production operations and that the achievements of leading enterprises and production innovators are being employed in all areas.

In reducing losses in raw materials and sugar, great importance is attached to the role being played by agroindustrial associations, the activities of which must be directed towards achieving high final results -- obtaining a maximum amount of sugar from each hectare of sugar beet sowing.

The initiative displayed by the beet growers in Yampolskiy Rayon and by workers at the Gonorovskiy Sugar Plant in Vinnitsa Oblast has received wide support. More than 10,000 agreements calling for labor collaboration are uniting the efforts of collectives at beet growing farms, sugar plants, transport and other organizations, in the campaign to raise the sugar beet yields, reduce the losses in sugar beets and raise the yield of sugar.

At many sugar plants of Minpishcheprom /Ministry of the Food Industry/ for the Ukrainian SSR, especially today with this branch operating under the conditions imposed by an economic experiment, an effort is being made to find the most economic methods for organizing and carrying out the production, for improving the technology for storing and processing the beets and for reducing the losses in beet bulk and sugar. Thus, during the 1983/84 season the collective at the

Krasnoselkovskiy Sugar Plant of the Vinnitsa Production-Agrarian Association of the sugar industry, while strictly observing the norms for losses in raw materials and sugar, achieved the highest sugar production in the country -- 50.1 quintals from each hectare of sowing. High sugar outputs from the 1983 beet harvest were also achieved in this association by the sugar plants: Gonorovskiy -- 49.2 quintals per hectare, Ilinetskiy -- 42.3 and Babinskiy -- 41.4; in the Kiev Association: Luchanskiy -- 43.7 quintals per hectare, Mironovskiy -- 43.7, Salivonkovskiy -- 41.2 quintals per hectare; in the Cherkassy Association: Zhashkovskiy -- 44.6 quintals per hectare, Gorodishchenskiy -- 43.8 and Berezinskiy -- 43.3 quintals per hectare.

The sugar yield at the Ilinetskiy Sugar Plant during the 1983/84 season amounted to 13.39 percent and the beet losses during storage and transport actually amounted to 2.17 percent of the mass of processed beets, compared to a norm of 3.5 percent. As a result of a reduction in beet and sugar losses during all of the production stages, more than 4,000 additional tons of sugar were obtained from the raw materials purchased.

Last season the collectives at the Gulkevichskiy, Meleuzovskiy, Nurlatskiy, Palmirskiy, Borshchevskiy, Chortkovskiy and many other sugar plants throughout the country achieved a high level of effectiveness in their use of raw material resources.

The sugar yield being obtained from the processing of raw cane sugar is increasing with each passing year. In 1982 it amounted to 95.22 percent throughout the branch as a whole, in 1983 -- 95.36 and during the first 6 months of 1984 -- 95.51 percent. The consumption of conventional fuel for processing the beets declined somewhat in 1983 compared to the plan and the level for the preceding year.

In evaluating at their true worth the positive results achieved, importance is being attached at the present time to concentrating attention on what needs to be done in order to eliminate the serious shortcomings existing in the work of a number of associations and enterprises of the sugar industry.

The principal causes of the 1983 shortfall in raw materials and sugar and the reduction in the effectiveness of the sugar beet complex: failure to observe the schedules for commencing and the rates for digging up and shipping the beets, especially in a number of oblasts in the RSFSR, the lowering of the quality requirements for the beets accepted for use and also shortcomings in organizing the acceptance, storage and processing of the beets at certain sugar plants. These shortcomings must not be tolerated this year. The sugar plant workers, jointly with the rayon agroindustrial associations, must ensure that all of the beet growing farms observe the beet harvesting schedules in a very strict manner, reduce beet losses during the digging up and shipping operations and avoid the accumulation of beets out on the fields.

During the 1981-1983 period, in the interest of reducing the beet losses and preserving their technological qualities more completely, the plans called for the construction of 5,380,000 square meters of mechanized warehouse and hard surface platform space at the beet receiving points of sugar plants. During these years, 4,560,000 square meters of such space were actually built,

including 1,210,000 square meters of space with forced ventilation. This work is being carried out on a very slow basis this year at a number of sugar plants. This was one of the reasons for the non-fulfillment in 1983 of the established tasks for storing beets with forced ventilation and also for the additional losses in beets and sugar.

Beyond any doubt, the non-fulfillment of tasks concerned with ventilating the beets can be explained by such objective causes as a shortage of material resources and deliveries of low quality raw materials. However, positive results were noted immediately in those areas where a responsible and business-like approach was employed when introducing into operations the elements of the progressive technology for the acceptance and storage of beets. Thus the carrying out of this work at the Zbarazh, Salivonkovskiy, Yagotin imeni Il'ich and Tbilisi sugar plants and at plants of the Central-Volga Association, in the Bashkir ASSR and others, ensured to a certain degree work characterized by a high productivity and low losses in raw materials and sugar.

In the time remaining prior to the commencement of the production season, the workers attached to sugar plants, associations and the food industry ministries of union beet-growing republics of the sugar industry must direct all of their efforts towards preparing the beet receiving points in a high quality manner and ensuring fulfillment of the planned measures for providing additional equipment and devices for use with the progressive technology for accepting and storing the sugar beets of the new harvest. A requirement also exists for ensuring high quality repair work for all of the existing mechanisms, spur tracks, ventilation units and other items of equipment.

The preparation of the beet receiving points for accepting the new harvest, similar to the packing of the beets in clamps, tending them and delivering them for processing, must be carried out in strict conformity with the existing technological regulation on the progressive methods for the acceptance and storage of sugar beets.

In the interest of reducing damage to the root crops, rubber gaskets should be installed on the production lines of the beet-packing machines. All of the waste scraps from the production lines of the beet-packing machines must necessarily be sorted out on beet scrap cleaners and all of the beet bulk deemed suitable for use should immediately be sent off for processing.

At the present time, importance is already being attached to the need for staffing the beet receiving points with machine operators, weighing personnel, laboratory workers and workers belonging to other professions and instructing them in the rules for the acceptance and storage of beets. All workers assigned to beet receiving points and sugar plants must study thoroughly GOST /State Standard/ 17421-82 "Sugar Beets for Industrial Processing. Procurement Requirements. Technical Conditions" and the normative documents approved by the USSR Minpishcheprom: "Instructions for Establishing Norms for Losses in Beet Bulk and Sugar in Sugar Beet Production" (1983) and "Instructions for the Acceptance, storage and Accounting for Sugar Beets" (1984). Taking into account the changes that have taken place in recent years in the conditions governing the cultivation, harvesting, transporting, acceptance, storage and processing of sugar beets and also in scientific works and leading production

experience, norms are presented in these instructions for losses in beet bulk and sugar from the moment the beets are accepted until the finished products are obtained and the principal measures for achieving these norms are set forth.

The use of a knowledgeable and creative approach in employing the mentioned norms and measures, in addition to improving the methods and means of control, constitutes a substantial reserve for achieving additional sugar output.

An urgent task confronting the sugar industry workers -- preparing all of the sugar plants for the new production season in a timely and high quality manner, ensuring fulfillment of the measures planned for introducing progressive technological systems and new types of equipment which will make it possible to reduce sugar losses in production, raising the level of automated production processes and the mechanization of loading and unloading and transport-warehouse operations; within the established time periods, ensuring the placing in operation of production capabilities for the processing of beets by means of new construction and the modernization and technical re-equipping of enterprises and also the carrying out of measures aimed at raising the level of use of production capabilities at existing sugar plants.

In carrying out a check on the readiness of the equipment and installations at sugar plants, special attention should be given to ensuring that all work concerned with the installation of equipment on a beet delivery and cleaning line, the recovery, classification and return of beet tails and scraps for processing, the systems and arrangements for returning pressed-pulp water for diffusion and the mechanization of the delivery procedures for calcium hypochlorite, double non-ammoniated superphosphate, trisodium phosphate and other preparations is carried out in a technically correct manner. This is an important condition for ensuring a reduction in losses and in expenditures of manual labor. All shortcomings detected during such a check must be eliminated prior to commencing operations at a plant.

The principal conditions for ensuring storage of the raw materials with minimal losses -- a correct evaluation of the quality of the beets accepted and a strict distribution of the beets in accordance with the schedules for the harvesting, storage and processing work. Thus the first element of the progressive technology for the acceptance and storage of beets is a mass pre-harvest chemical-phytopathological inspection of all of the beet plantations for the purpose of establishing the sequence and rates for harvesting the beets and also for a preliminary distribution of them in accordance with the storage schedules, based upon the status of the plantings, hollowness, diseases of the leaves and root crops and the degree of weediness of the plantations.

Commencing with the start of production operations, the workers attached to the raw material and technological services of the sugar plants must interpret the losses in beet bulk and sugar, from the moment the beets are accepted until the final product is obtained and, based upon the results obtained, they must introduce corrections into the work of the beet receiving points and the sugar plant directed towards bringing the losses in beet bulk and sugar into line with the established norms.

The introduction of progressive technologies during all stages of beet and sugar production, the development of creative initiative and an efficient system

of incentives combined with high exactingness and responsibility -- these then are the chief conditions for realizing high results with minimal expenditures and for achieving success at any enterprise and in each association.

A requirement of the times and an important factor associated with the intensification of production is that of searching for and finding new opportunities for achieving more complete use of the raw materials. Considerable reserves are available at practically every beet receiving point and sugar plant, the use of which will make it possible to reduce losses and raise the output of marketable sugar.

"An adequate number of correct statements have been made concerning the need for economizing in the use of metal, fuel, power and all other resources" stated the general secretary of the CPSU Central Committee and chairman of the Presidium of the USSR Supreme Soviet K.U. Chernenko, in a speech before workers at the Moscow Serp I Molot Metallurgical Plant, "But by no means are these statements being reinforced by specific actions. Only initiative and a personal contribution by each individual -- from a worker to a director -- in carrying out the program aimed at strengthening the thrifty regime in all areas and in all respects will produce perceptible results."

In completing the preparations for the new production season, the socialist competition for over-fulfilling the tasks for the fourth year of the 11th Five-Year Plan for sugar production, raising labor productivity and lowering production costs is undergoing further expansion at the sugar plants and beet receiving points.

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## LIVESTOCK FEED PROCUREMENT

UDC 631.1

### MIXED FEED PRODUCTION EFFICIENCY DISCUSSED

Moscow EKONOMIKA SEL'SKOGO KHOZYAYSTVA in Russian No 8, Aug 84 pp 53-56

/Article by S. Burtsev, senior economist at the All-Union Scientific Research Institute of Economics of Agriculture: "Urgent Problems of Production and Utilization of Mixed Feed"

/Text/ In the structure of the country's agroindustrial complex a sector very necessary for the national economy--the mixed feed industry--has been developing significantly.

Mixed feed is produced at state, as well as kolkhoz, sovkhos and interfarm, mixed feed enterprises. The share of their output in the total amount of mixed feed produced in the country in recent years has increased sharply, averaging 19 percent in 1982, including 51 percent in the Ukrainian SSR, 21 percent in the Moldavian SSR and 9 percent in the RSFSR. In all there are more than 4,500 kolkhoz, sovkhos and interfarm mixed feed enterprises in the country.

State enterprises produce, primarily according to complex technology, mixed feed, protein-vitamin additives and premixes from raw materials allocated to them from the state stock, while farm and interfarm enterprises, mixed feed from the raw materials of kolkhozes and sovkhoses and protein-vitamin additives supplied by industry. They produce mixed feed basically according to simple technology accessible to them.

With the formation of this new industrial sector difficulties have appeared, hampering the further development of mixed feed production at all the types of enterprises enumerated above. The main difficulty lies in the lag of related sectors of the agroindustrial complex in the delivery of raw protein materials of animal and plant origin (fish meal, dry skim milk, meat-bone meal, cakes, oil-seed meal and grain of leguminous crops) to the mixed feed industry.

The problem of providing the mixed feed industry with raw protein materials can be solved in the next few years. Food industry sectors have considerable potentials for increasing the production of dry protein feed. For example, in more than one-fourth of the meat processing enterprises there are no utilization shops and installations for the production of meat-bone meal. Therefore, the bulk of the bones remaining after livestock processing are used for the production of fertilizers and are sold to various organizations and the population. Only one-fifth is used in the production of meat-bone meal. In the



last few years the production of this valuable protein feed throughout the country has been stabilized and in the Russian Federation it has even decreased. The production capacities of utilization shops are hardly growing. The production of fish meal at fish industry enterprises has also been reduced, whereas more than 650,000 tons of nonfood fish and sausage meat are delivered to consumers in raw form, bypassing the mixed feed industry. More than 60 percent of the food fish is sold to the population in unprocessed form. At the same time, about 1 million tons of waste, which could be used in the production of fish feed meal, are lost. An elimination of all these shortcomings would make it possible to significantly increase the production of raw protein materials for the mixed feed industry, as a result of which the production of high-quality mixed feed would rise.

There are also extensive possibilities for the production of dry skim milk at dairy industry enterprises.

Shortcomings in the existing economic mechanism, in particular in the formation of the prices of raw materials and finished products, in the substantiation of the placement of mixed feed production at state, farm and interfarm enterprises throughout republics, economic regions, krays and oblasts, and in the evaluation of the economic efficiency of mixed feed production by enterprises of various types in the country's various zones also hamper in large measure the development of the mixed feed industry and increase in its efficiency. For example, the price of soybean-oil, sunflower-oil and other types of meal, which contain 35 to 40 percent of protein, is 20 to 22 rubles per ton, while the price of grain allocated to the mixed feed industry, which contains 10 to 12 percent of protein, is 110 rubles per ton. Fish meal is evaluated 2.5 times higher than meat-bone meal, although its protein content is 1.5 times higher. The price of dry skim milk is three times higher than that of meat-bone meal, while the protein content in them is the same. Under the effect of such prices it turns out that 1 quintal of protein contained in cakes and oil-seed meal costs 6 rubles, in the grain of leguminous crops, 80 rubles, in the grain of cereal crops, 100 rubles, in meat-bone meal, 70 rubles, in fish meal, 132 rubles and in dry skim milk, 265 rubles. The prices of individual types of vitamins and trace elements are still high, which leads to an unsubstantiated increase in the prices of premixes for the production of some types of mixed feed and protein-vitamin additives. For example, the value of premixes introduced into mixed feed for younger hoglings comprises 23 percent of the total value of this mixed feed, which greatly increases its cost.

The prices of individual types of raw materials, which do not correspond to their nutritive value, do not make it possible to objectively determine the economic efficiency of production of various types of mixed feed and, accordingly, the production cost of livestock products. Therefore, the regulation of the prices of raw materials supplied to the mixed feed industry and of the corresponding equivalent prices of various types of mixed feed is an urgent task.

The level of efficiency of mixed feed production also depends to a significant extent on the placement of mixed feed enterprises. As yet this is done in an insufficiently substantiated manner. In a number of the country's regions the

production capacities of state mixed feed enterprises do not meet the needs of animal husbandry in these regions for mixed feed, which leads to its long-distance and inefficient transportation. During a technical and economic substantiation of the placement of such enterprises it is necessary to proceed from the fact that it is very important to bring the production of mixed feed closer to animal husbandry farms and sections and to maximally shorten the distance of transportation of raw materials and finished products. As yet, however, the delivery of grain and other raw materials to state mixed feed enterprises from remote farms and the transportation of finished products (mixed feed or feed mixtures) from enterprises to such farms in many regions are connected with big transport expenditures. For example, whereas in the Ukraine, Moldavia and Ryazan, Orel, Kaluga, Tambov, Tula, Lipetsk and some other oblasts of the RSFSR the distances between farms and procurement centers for the acceptance of grain (including mixed feed plants) are 20 to 27 km and, on the average, in the RSFSR, 40 km and maximum distances, 150 and 350 km respectively, in the Tatar ASSR the average distance is 65 km and the maximum distance, more than 200 km, in Kirov Oblast, 76 and 165 km, in Krasnoyarsk Kray, 69 and 250 km, in Orenburg Oblast, 51 and 185 km and in Chita Oblast, 110 and 350 km. In order to avoid long-distance and inefficient transportation of forage grain and mixed feed, in a number of regions it is necessary to build mixed feed enterprises of a small production capacity on remote farms and to allocate the necessary amount of protein-vitamin additives to such enterprises.

However, when mixed feed production is placed, these features are taken into consideration insufficiently or not at all. For example, in Volga, East-Siberian, West-Siberian and Ural economic regions, where there are especially many out-of-the-way farms, in 1982 the provision of farm and interfarm mixed feed enterprises with protein-vitamin additives comprised only 8 to 10 percent of the need for them, as a result of which the capacities of these enterprises were by no means fully utilized, grain (its bulk) was fed to livestock without being enriched with protein-vitamin additives and a big overexpenditures of feed was tolerated.

In the country's various zones the bioclimatic and economic conditions of grain production are not the same. Therefore, the production cost of 1 ton of grain in them is different. In grain regions it is 2 to 2.5 times lower than in non-grain regions. Owing to this, the production cost of 1 ton of mixed feed, for example for hogs, at farm enterprises in grain regions is 95 to 125 rubles and in nongrain regions, 160 to 240 rubles with uniform release prices of mixed feed produced by enterprises of the state mixed feed industry amounting to 130 or 131 rubles per ton. Taking all this into consideration, kolkhozes and sovkhozes in grain regions are interested in the construction of their own mixed feed enterprises and production of mixed feed from their own raw materials. Conversely, farms in nongrain regions do not want to carry out such construction and try to purchase mixed feed produced by the state mixed feed industry, or to exchange their grain for mixed feed.

The economic conditions of mixed feed production existing on farms in the non-grain zone cannot stimulate its development, because the production of pork and other livestock products with the utilization of mixed feed produced by their enterprises is unprofitable on many farms.

A comparison of the production cost of mixed feed at interfarm mixed feed enterprises with a release price of mixed feed produced at state mixed feed plants gives a description of the economic efficiency of mixed feed production in the systems of the USSR Ministry of Procurement and the USSR Ministry of Agriculture both throughout the country and throughout republics and economic regions.

A comparison of these indicators formed, on the average, in 1978-1982, for example, in the production of mixed feed for mature hogs has shown that the calculated production cost of 1 ton of such mixed feed produced at interfarm enterprises throughout the country is at the level of the release price per ton of this mixed feed produced at state enterprises and, on the average, in individual economic regions and republics it is lower or higher than the latter. For example, on the average, in the Central Chernozem Economic Region it is 15 rubles lower, in North Caucasian and Volga economic regions, 2 rubles lower, in the Moldavian SSR, 16 rubles lower and in the Kirghiz SSR, the Ukrainian SSR and the Ural Economic Region, 6 rubles lower, while, on the average, in the Far Eastern Economic Region, the Belorussian SSR, the Latvian SSR, the Estonian SSR and the Lithuanian SSR it is 20 rubles higher, in the North Western Economic Region, 22 rubles higher and so forth. As can be seen from these data, the difference is especially big in the nonchernozem zone of the RSFSR and other nongrain regions.

An analysis of the economics of mixed feed production at farm, interfarm and state mixed feed enterprises in the country's various zones confirms the importance of an all-around approach to the solution of the problem of production placement and where provision should be made for maximally bringing mixed feed production closer to animal husbandry sections and complexes. At the same time, it is necessary to take into consideration the availability and cost of raw materials, efficiency of mixed feed, profitability of mixed feed enterprises and economic benefit for kolkhozes and sovkhoses in various zones from the use of state mixed feed and that produced at their own enterprises. For example, in the RSFSR nonchernozem zone with a comparatively small volume and high production cost of grain it is hardly advisable to increase pork production in the future. In this zone there are big areas of hayfields and pastures giving the cheapest feed for dairy and beef cattle and sheep, which makes it possible to give preference to an increase in the production of milk, beef and mutton.

The rapid growth of the mixed feed industry and its increasing effect on the development of animal husbandry and an efficient placement of the production of livestock products throughout the country's zones under the conditions of intensification of agroindustrial integration generate a need for strengthening intersectorial relations and increasing the responsibility of all the sectors of the agroindustrial complex for the fulfillment of plans for the production of finished products. Mutual coordination in the work of enterprises of the mixed feed industry and agriculture should be especially close. Agriculture is the main supplier of raw materials, primarily of forage grain in the required assortment, as well as the consumer of the finished products of the mixed feed industry. All this necessitates especially stable relations between these sectors and an efficient planning of deliveries of agricultural

raw materials to the mixed feed industry and of mixed feed to kolkhozes and sovkhozes, in which there are still considerable shortcomings. For example, the mixed feed industry receives 85 percent of the required grain centrally from the state and 15 percent, from kolkhozes and sovkhozes in exchange for mixed feed. As yet, however, firm plans for grain deliveries in exchange for mixed feed are not assigned to krays and oblasts and these deliveries depend primarily on the interests of grain procurement officials, not consumers of mixed feed, which results in an insufficient and unstable provision of animal husbandry with feed.

At present plans for the production and distribution of mixed feed throughout RSFSR autonomous republics, krays and oblasts are approved only for 6 months with an annual planning of the production of livestock products. Plans for the production and deliveries of mixed feed to farms are assigned with a delay of 1 to 1½ months, which disrupts the planned nature of mixed feed production and a normal and regular supply of mixed feed for animals throughout the year. Farms, unaware ahead of time of the mixed feed stocks for the second 6 months, experience difficulties with the fulfillment of plans for the production of livestock products. Such a system of planning the production and distribution of mixed feed cannot be advisable and should be changed.

Practice has shown that an increase in the share of mixed feed in all concentrated feed and an improvement in its quality play a decisive role in an increase in the productivity of livestock and poultry and in a decrease in the production cost of livestock products in all the country's zones. Even in oblasts in the RSFSR nonchernozem zone, where the production cost of grain is comparatively high, with a big share of mixed feed in the rations of hogs (70 to 90 percent) mainly as a result of efficient feeding, the production cost of pork is lower than in grain oblasts, where the share of mixed feed in the rations of animals is much smaller (see table).

Share of Mixed Feed in Rations of Hogs and Efficiency of Pork Production on Sovkhozes in Various RSFSR Oblasts in 1982

Oblasts	Share of mixed feed in concentrated feed, %	Production cost per quintal of pork, rubles	Level of profitability of pork production, %
Nongrain oblasts			
Leningrad	88	139	17
Moscow	90	140	10
Vologda	80	122	71
Novgorod	80	150	38
Kirov	36	240	-21*
Grain oblasts			
Saratov	40	174	-26*
Volgograd	32	154	-15*
Rostov	31	179	-37*

\*Production is unprofitable

Farm organization, planning, the technical level of management of hog breeding and other factors also affect to some extent the production cost of pork in the indicated oblasts. However, the quality of feed and its balance in terms of nutritive substances, vitamins and other biologically active substances are the main factors determining the efficiency of hog breeding, which is also confirmed by the level of feed expenditure per unit of livestock output. For example, in 1982 the consumption of concentrated feed per quintal of gain in the live weight of feeder hogs on sovkhozes, where mixed feed predominated in the rations of animals, was as follows: in Leningrad Oblast, 5 quintals, in Moscow Oblast, 4.9 quintals, in Vologda Oblast, 5.8 quintals and in Novgorod Oblast, 5.9 quintals. In oblasts, where hogs were fed primarily simple grain mixtures, it was as follows: in Kirov Oblast, 7.1 quintals, in Saratov Oblast, 8.4 quintals, in Volgograd Oblast, 8.7 quintals and in Rostov Oblast, 11.9 quintals.

The resource of forage grain and the established production capacities of mixed feed enterprises make it possible not only to fulfill, but to overfulfill, the plan for mixed feed production set for the five-year period. An increase in production in appropriate sectors and in the delivery of the necessary raw materials by them to mixed feed enterprises would make it possible in the very near future to process all forage grain into mixed feed and feed mixtures, to improve the quality of mixed feed and to increase the production of livestock products, which would contribute to a successful implementation of the Food Program. To implement this, it is advisable to intensify the measures of moral and material stimulation of the growth of production of raw protein materials and to regulate the wholesale prices of raw materials supplied to the mixed feed industry and, accordingly, of the finished products of this sector.

There is also a need for specific measures to increase the production capacities of utilization shops of industrial enterprises producing dry feed and biologically active substances and for the use of the funds of all the sectors of the agroindustrial complex for this. An improvement in the planning and an efficient placement of mixed feed production in various types of enterprises throughout economic regions, republics, krais and oblasts, which will eliminate inefficient transportation of raw materials and finished products and increase the efficiency of production and utilization of mixed feed, are of great importance for the further development of mixed feed production.

The implementation of measures envisaged in the decree of the CPSU Central Committee and the USSR Council of Ministers "On Improving the Management of Agriculture and Other Sectors of the Agroindustrial Complex" approved by the May (1982) Plenum of the CPSU Central Committee will make it possible to strengthen the connection and to coordinate the work of all the sectors of the agroindustrial complex, to eliminate the shortcomings in the organization, planning and placement of mixed feed production and in the supply of various raw materials for this sector and to overallly solve all the problems of its further development.

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## LIVESTOCK FEED PROCUREMENT

### HAY, HAYLAGE, SILAGE PROCUREMENT OVERVIEW

Moscow SEL'SKAYA ZHIZN' in Russian 21 Sep 84 p 1

/Article by M. Glinka, zootechnician: "Supplementing the Feed Supplies"/

/Text/ The USSR TsSU /Central Statistical Administration/ has issued the report: as of 17 September the country's farms had procured 63.4 million tons of hay -- 87 percent of last year's level. Haylage has been placed in storage in the amount of 65.3 million tons (101 percent), straw, chaff and other coarse feeds -- 72.5 million tons (94 percent) and feed root crops -- 2.4 million tons (64 percent). Roughly 146.7 million tons of prepared silage were obtained (93 percent) and 6.3 million tons of grass meal and other artificially dehydrated green feeds (93 percent) were produced.

The last weeks for haying, ensiling and haylage making are at hand and the tasks for procuring coarse and succulent feeds have by no means been fulfilled on all of the farms. The hay procurement plan for the country as a whole has as yet been fulfilled by only 85 percent and at kolkhozes and sovkhoses in Uzbekistan -- by only 55 percent, Georgia -- by 64 and in Kirghizia -- by 70 percent. The farms in Georgia, Armenia, certain oblasts in the Ukraine and in Ivanovo, Tambov, Volgograd, Orenburg and a number of other oblasts in the Russian Federation have not fulfilled their tasks for the laying in of haylage. The kolkhozes and sovkhoses in Kazakhstan and Moldavia obtained only one half or less than the planned quantity of silage. The farms in Uzbekistan, Kirghizia and Tajikistan are lagging behind in their production of grass meal. Generally speaking, a large amount of work remains to be carried out if a reliable supply of coarse and succulent feed is to be created on each kolkhoz and sovkhos farm.

The potential is available for accomplishing this. In many areas the conditions for growth in the grasses during the second half of the summer were considerably better than at the beginning of the season and fine aftergrowth has appeared out on the fields. The supplies of coarse feed can be supplemented by means of the straw and dry corn stalks which are still waiting to be gathered up from the fields. In a number of areas this crop is being harvested for grain during the waxy ripeness phase and this is making it possible to utilize the leaf and stalk bulk for supplementing the silage supplies.

The beet plantations are providing a large quantity of biomass that is suitable for the preparation not only of succulent feeds but also vitamin meal. The sugar refining season has commenced and the farms now have pulp residue at their disposal, a considerable portion of which should ideally be squeezed out and ensiled or dried and converted into a nutritious concentrate. Nor do zealous workers neglect the preparation of coniferous meal.

Generally speaking, the sources for producing coarse and succulent feed have not yet been exhausted; considerable quantities still remain. The trend which has appeared in some areas towards curtailing their procurements and terminating the work aimed at increasing the forage supplies for the farms is thus viewed as being unacceptable.

For example, data on the accumulation of silage on farms in the union republics (in percentages of the plan) is shown in the following table:

	Total Amount Procured	Increase During The Week Under Review
RSFSR	63	14
Ukraine	49	12
Belorussia	70	12
Uzbekistan	33	9
Kazakhstan	34	13
Georgia	28	4
Azerbaijan	37	7
Lithuania	81	6
Moldavia	23	12
Latvia	66	8
Kirghizia	51	13
Tajikistan	45	4
Armenia	44	9
Turkmenia	59	4
Estonia	99	8

The ensiling rates on farms in Georgia, where over the past 7 days the supplies of succulent feed increased by only 43,000 tons, are completely inadequate. In keeping with today's rates, the machine operators here require no less than 120 days in order to fulfill their tasks. Recently the Central Committee of the republic's Communist Party analyzed the situation on the feed fields of two rayons -- Karelskiy and Tskhinvalskiy. In the decree which was adopted, specific measures were outlined calling for the unconditional fulfillment by the farms of their planned tasks for producing all types of high quality feed and for uncovering opportunities for eliminating the deficit in coarse feeds in individual rayons and making maximum use of all of the resources available for procuring them. The recommendation was made to have the rayon agro-industrial associations examine the question of the responsibility of those individuals who tolerated serious neglect in the procurement of feed.

The rates for the laying in of silage are low on farms in Tajikistan. The corn crop has ripened and it is being harvested slowly, especially in Kurgan-

Tyube, Kulyab and Leninabad oblasts. The laying in of haylage has practically ceased in the republic -- during the week under review, the haylage supplies increased by only 4,000 tons. And the amount of hay procured increased by 14,000 tons -- this is 2 percent of the plan, although the task for procuring valuable feed was fulfilled by only 75 percent.

Only 4 percent of the planned amount of silage was obtained during the week under review on farms in Turkmenia. A reduction was noted in the tense nature of the work being carried out on the republic's alfalfa fields -- the chief source for hay and haylage.

It is difficult to understand the complacency of the leaders of some Lithuanian farms. The republic has surpassed its plan for procuring hay and haylage and yet it has obtained only 81 percent of the planned amount of silage. And indeed the winter farms cannot proceed in the absence of succulent feed.

The modern methods for processing straw are making it possible to raise its nutritional value noticeably, to enrich it with protein and to transform the waste products of field crop husbandry into good feed. From the entire area of harvested cereal grain crops, the machine operators in the Ukraine, Azerbaijan and Turkmenia stacked or supplied the farms with straw. This same work is being carried out in Moldavia and Armenia. In the Russian Federation they have completed or are completing the stacking of straw in the Chuvash and Checheno-Ingush autonomous republics, in Krasnodar Kray and in Voronezh, Kursk, Saratov, Rostov and a number of other oblasts. However, a zealous attitude is not being displayed towards barn floor feed in all areas. In Novogorod, Pskov and Yaroslavl oblasts, straw can be found lying on almost one half of the threshed areas. It has not been gathered up on tens of thousands of hectares in Kalinin, Kostroma, Smolensk and Perm oblasts. The post-harvest residues are being removed very slowly from the grain fields in Kemerovo Oblast. Some alarming news has been received from the Altay Kray: some farms are burning their straw.

Importance is being attached to the proper maintenance of the rural roads and to ensuring that the feed is delivered to the farms and the distant tracts. The tractors and motor vehicles must not become bogged down during the autumn period of bad roads or in winter snow drifts. Last year's supplies of hay out on the winter pastures of Kazakhstan, Georgia and Azerbaijan are being exceeded. This important work has slowed down in some oblasts of the RSFSR. Time does not wait; the last weeks for feed procurement work are at hand. An important task of the leaders and specialists of agroindustrial associations, kolkhozes and sovkhoses is that of utilizing all sources for supplementing the feed supplies.

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## LIVESTOCK FEED PROCUREMENT

### MERITS OF GREEN CHOP FOR HOG FEED DISCUSSED

Moscow SEL'SKAYA ZHIZN' in Russian 4 Sep '84 p 2

[Article by I. Tronchuk, department director of the Poltava NII [Scientific Technical Institute] of Hog Raising and doctor of agricultural sciences, Poltava: "Feeds and Weight Gain"]

[Text] For some reason people still feel that grain is the most full-value feed for hogs, and that the more of it in a ration, the better. Some enterprises use up to 8-10 quintals of grain per quintal of weight gain. We are against this type of simplified conception about the full value of feed. Grain-forage, while having a number of nutritional advantages, is at the same time not rich in vitamins and minerals. We know about cases in which hogs were fed only coarsely ground grain, and their daily weight gain did not exceed 150-300 grams. Up to 10-12 feed units were expended per kilogram. In addition, grain is an expensive feed. The cost of a quintal of pork reaches 300 rubles.

A different picture develops when succulent green and coarse feeds are included in the ration. Weight gain reaches 500-600 grams. The expenditure of feed per kilogram of weight gain decreases to 5-5.5 feed units. Fattening time decreases significantly and pork quality improves.

This is why it is necessary to pay close attention to those feeds which according to their properties must be irreplaceable components in hog rations. Above all, green chop and that which can be obtained from it for overwintering should be utilized more widely. While being characterized by low cost, they do contain the most important nutritive substances. Let us take alfalfa, clover and other legumes. When fed during the phase of branching and budding, in 1 kilogram of dry substance they contain three times more lysine, 150-200 times more carotene and 8-10 times more calcium than cereal grasses. In essence, hog raising, especially of the pedigree type, is unthinkable without perennial grasses. The experience of leading enterprises tells us that grasses should be sown so that they yield no less than 5 tons of fresh green mass per sow with progeny from May to September. In addition, reserves should be created for winter from 1-1.5 tons of grass and hay meal.

Grasses, by raising the full value of the ration, enable us to economize on large quantities of grain. In one of our tests we studied the possibility

of maximally replacing concentrated feeds with granules of alfalfa harvested during the beginning of bud formation. The experiment was conducted according to the following scheme: one group of animals received mixed fodder that contained 91.5 percent grain and protein supplements and 8.5 percent alfalfa granules. The mixed feed of the next groups of animals contained 16, 25 and even 40 percent alfalfa granules according to weight. The best weight gain--619 grams--was achieved by animals which were fed mixed feed with 16 percent granule content. But even with a 40 percent granule content in mixed feed weight gain remained high--508 grams. As we can see, the expenditure of grain can be decreased by at least one fourth.

For feeding in fresh form alfalfa in the budding phase is especially valuable. But not all raw materials are suitable for the preparation of high-quality granules. I will cite another experiment. Included in mixed feed was 20 percent granules made from alfalfa harvested during the beginning of budding, the beginning of blooming and during blooming. It turned out that the best were the granules made from alfalfa in the budding stage--the average daily weight gain equalled 549 grams. Granules from the other phases decreased it by 9.6 and 19.9 percent. The quality of granules depends on the drying regimen. It is best dried to a moisture content of 9-12 percent. Granules with a large amount of moisture rot, and overdried granules lose their feed value.

We know that perennial leguminous grasses achieve the largest output of protein per hectare of crops and consequently it is the least costly protein. With a corn yield of 40 quintals of grain per hectare the output of protein is equivalent to 3 quintals, and in alfalfa from dry-farming land a yield of 200 quintals of green mass contains 8 quintals of protein. Its cost is several times lower than that of grain protein.

Root crops, which unfortunately are also insufficiently utilized in hog raising, are also suitable. According to their feed properties they are no less valuable than grain during the winter period. Root crops enrich the rations of easily digestible carbohydrates and vitamins, improve their taste qualities and stimulate high reproductive qualities in the mother herd.

Root crops together with the aftercrop of perennial grasses and ears of corn in the milky-wax stage of ripeness make an excellent, succulent feed--silage. The technology for preparing it is well known. I will note only some of the more important principles. The best quality silage is obtained when the following proportions are adhered to: root crops with haulm and squash should make up 25-30 percent, aftergrowth of perennial grasses--15-20 percent, and ears--the remainder. The well-concentrated mass is covered no later than 5-7 days after the beginning of its placement in trenches. In recent years this type of silage has been widely used by enterprises in Poltava, Kharkov and other oblasts, which have stored 4-5 tons per sow.

For the intensive management of the branch, what quantity of all feeds is needed? Let us look at the experience of the best enterprises. In Pobeda Kolkhoz of Pokrovskiy Rayon, Dnepropetrovsk Oblast, it is felt that it is necessary to have a minimum of 130 quintals of feed units per sow and progeny. Then it is possible to produce 500 quintals of pork per 100 hectares of plow-

land, as in this enterprise. Hog raising provides great profits for the kolkhoz; the profitability of the branch is about 26 percent. Approximately similar indicators are achieved by the Poltavian Sovkhoz imeni Kuybyshev. Here a solid feed base is developed each year. In it an appreciable share is made up of grasses, root crops and grass meal, half of which is exchanged for mixed feed. Thus, grasses must become the foundation of the feed base together with grains.

The extensive utilization of green and succulent feeds enables the Sovkhoz imeni Kuybyshev to decrease the expenditure of grain for hogs to 70 percent according to nutritive value, i.e. to use 10-15 percent less than the majority of enterprises. At first glance this does not appear to be such a great savings. But on the scale of each oblast and especially of the country, this means millions of tons of grain saved.

Another source for curtailing grain expenditure is its mandatory processing into mixed feed. Not a single kilogram of grain should be fed in pure form. After all, in mixed feed its effectiveness increases significantly. Especially good results are achieved from the extrusion of grain, especially peas. The nutritive value of the dry substance increases by about 11 percent, and the content of digestible protein--by 25 percent.

An important moment in the intensification of hog raising was the transition to starter mixed feed when raising piglets. The inclusion in such mixed feed of 15-20 percent extruded peas and 4-5 percent feed yeast, even with a minimum of feed of animal origin, enables us to produce 2-month old piglets weighing 16-18 kilograms. A piglet that is prepared in this way guarantees large weight gains, achieves a greater return on feed and reaches the necessary weight by the age of 7-8 months. I feel that there is no need to explain how this affects the economic indicators of the entire branch. In the interests of the matter, mixed feed plants--both state and inter-enterprise--must increase as rapidly as possible the production of full-value starter mixed feed, which will have an immediate effect on the development of hog raising.

Of course, success in hog raising depends on an entire complex of measures which are closely interrelated. But I focused on the most important factor--feed production. For full-value and at the same time, inexpensive feeds produced by the enterprise itself, are the starting point for all the other components of the branch. This must always be kept in mind.

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## LIVESTOCK FEED PROCUREMENT

### SUMMER MAINTENANCE OF HOGS IN LARGE COMPLEXES

Moscow SEL'SKAYA ZHIZN' in Russian 5 Sep 84 p 2

[Article by Z. Gil'man, doctor of agricultural sciences, Belorussian SSR:  
"A Camp for the Complex"]

[Text] Are summer camps needed in industrial hog raising?  
Every 5 tons of green feed enables us to save 1 ton of  
concentrates. A green conveyor is needed for the hog-  
raising complex.

Last summer Belorussian kolkhozes and sovkhoses increased pork production by 17 percent, significantly surpassing the previous average annual pace of branch development. To a great extent this was the result of the extensive utilization of camp maintenance of hogs and of an increase in the proportion of green feeds in rations not only on small and average-size farms but in complexes as well. For every 5-7 tons of green mass fed to hogs there is a savings of 1 ton of concentrates in the republic. The cost of feeds used has decreased significantly since the feed unit in green mass is three times cheaper than in grain and five times cheaper than in root and tuber crops.

Green chop is not only inexpensive, but of full value as well. It enriches rations with proteins, vitamins and mineral salts. Recently it was established that in it and in root and tuber crops we find fermented polyphenoloxylase, which has a positive effect on the reproductive functions of sows. If it is absent from rations, the fertility of sows decreases by 1.5-2 piglets, which happens in enterprises which feed hogs solely with concentrates.

The attitude toward summer camp maintenance of hogs has changed noticeably in the republic. Still, green chop continues to be fed to animals in quantities that are about half those that they can eat. A green conveyor for hogs is not operating in all enterprises by far. In the building of summer camps many errors are tolerated; after all, successful designs have not yet been elaborated for these objects. Every enterprise builds them in its own way, tolerating great errors.

Arguments continue about whether it is necessary to build camps for industrial complexes and about which animals to take out there first if the answer is yes. In the Yuzhnoye Complex of Pinskiy Rayon, Brest Oblast, summer camps

are used to maintain boars, in the sovkhoz-combines Voskhod of Mogilev Oblast and Luches of Vitebsk Oblast and in Put' K Kommunizmu Kolkhoz of Grodno Oblast--to maintain replacement hogs and gestating swine, and in Slonimskiy Reproductive Sovkhoz of Grodno Oblast--suckling sows. In each of these enterprises the camp maintenance of hogs was successful and now it is clear that it is good practice to bring boars, replacement hogs as well as sows into the fresh air.

But in a large enterprise it is impossible to move the mother herd to a camp. This is why for suckling sows 1-2 sections are set up with a total number of 60 stalls. When suckling pigs are weaned early this is enough to free 180-240 places in pens for 35-45 days with the goal of sanitation and repair. This is especially important for those complexes which have already been operating for several years; after all, with long-term use of capital facilities, disease-producing microorganisms resistant to disinfection agents will develop. Zootechnologists-practical workers refer to this as the "fatigue" of a facility. If farrowing is allowed in "fatigued" piggens a significant portion of the piglets dies. The best way to sanitize such facilities is to free them of animals for several weeks, which is achieved with the alternate transfer of one to two productive groups of sows with their piglets to summer camps.

In large enterprises of the industrial type summer camps are located within the limits of the "white zone" of the complex in order to utilize the stationary systems of manure removal, the water supply and the electrical network, as well as the feeding network in part. In the Luchesa Sovkhoz-Combine of Vitebsk Oblast, the Put' K Kommunizmu Kolkhoz of Grodno Oblast, Sovetskiy Sovkhoz of Minsk Oblast and a number of other enterprises in Belorussia workers became convinced that the best standard camp facility for hogs is a lean-to awning with a fully-open or partially open front side and adjoining covered grazing feed platforms (4 square meters per head). Sheds and grazing platforms are doubled up parallel to each other on both sides of the feed canal. In this way expenditures for covers are curtailed by one half.

Feed for hogs which are located in camps is prepared in the main feed-production shops, and if this is not possible, on a simple feed platform with minimal equipment. Green chop is brought in on tractor dumper trailers, and mixed feed--on automatic loaders. Green chop paste that is prepared by the Volgar-5 is placed into the feed distributor by an inclined conveyor. Mixed feed from bunkers is placed there as well. Green chop is mixed with concentrates, water, dairy wastes and other supplements and unloaded into feeders.

The camp is relatively inexpensive. The walls of the sheds are made of wood, brick, quarystone, concrete blocks, panels and other materials--whatever is available. The only thing that is important is that the walls be without cracks, which may mean a loss of piglets due to drafts. The roof of the shed is covered with roofing shingle and roofing felt. Roofing must be lightproof and waterproof; it must protect not only against rain but also against high temperatures in the stalls during sunny weather. Floors are usually made of concrete, floor tile, brick or wood.

Of course, only those complexes which have land for creating a green conveyor can utilize green chop to feed hogs in summer camps. Unfortunately, not all hog-raising complexes have acquired arable land for their own production of green chop. This is slowing down the application of progressive experience. The maintenance of hogs in summer camps not only in small and average farms but in large complexes as well is a great but by far not fully utilized reserve for increasing the production of pork, for decreasing its cost and for saving on grain forage.

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## AGRO-ECONOMICS AND ORGANIZATION

### PARTY OFFICIAL ON LATVIAN APK PROGRESS, PROBLEMS

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/Article by V. Chemm, secretary of the Central Committee of the Communist Party of Latvia: "The Republic's Agroindustrial Complex: Development and Problems"/

/Text/ As is known, our party views concern for agricultural development as a task of paramount economic and socio-political importance. "We base our position upon the fact that a highly developed and efficiently functioning agroindustrial complex is a necessary condition for further improving the material well-being of the people and raising the efficiency of the country's entire national economy," stated K.U. Chernenko in a speech delivered before the All-Union Economic Conference on Problems of the Agroindustrial Complex.

Tremendous capital investments and material resources are being made available for the development of agriculture and its associated branches. A great amount of attention is being given to strengthening the kolkhoz and sovkhos economies, to the social development of the rural areas and to improving the organization and stimulation of labor.

During the period which has elapsed since the May (1982) Plenum of the CPSU Central Committee, the logistical base for agriculture in our republic has been strengthened considerably. Roughly 1,364,000,000 rubles, or 32 percent of all capital investments, were allocated for its development in terms of an entire complex of operations. This was 17 percent more than the figure for the first 3 years of the preceding five-year plan. The technical re-equipping of the branch has continued. The power engineering capabilities in the rural areas have increased by 16 percent and the capital-labor and power-worker ratios -- by 17 percent. A great deal has been accomplished in connection with the use of chemical processes in agriculture. Last year, for example, 234 kilograms of mineral fertilizer in a conversion for active substance were applied per hectare of arable land. Substantial improvements were realized in the work aimed at accumulating and applying organic fertilizers. A large sum -- 265 million rubles -- was made available for land reclamation operations and for the development of reclaimed lands. The area of drained lands was increased by 150,000 hectares.

The level of specialization and concentration was raised. Construction work was completed on 212 complexes for the production of milk and on 21 complexes

for the raising and fattening of hogs. These complexes produce 22.7 percent of the milk and 20 percent of the weight increases in hogs.

Special attention was given to strengthening the economically weak kolkhozes and sovkhoses.

During the period which has elapsed since the May Plenum, a considerable number of installations of a socio-cultural and domestic nature have been erected in the rural areas. During this period of time, approximately 1 million square meters of housing space were occupied, or more by a factor of 1.5 than the figure for the same period during the last five-year plan. Many new facilities were opened: pre-school institutes for 4,800 children, schools, stores and municipal services installations.

As a result of the effort put forth in agriculture throughout the republic, success was achieved not only in overcoming the consequences of the unfavorable weather conditions experienced in recent years but also in achieving definite growth in output production.

In 1983, an absolute majority of the rayons fulfilled and over-fulfilled the state plan for procurements of all types of products. The following quantities of products were sold to the state over and above the plan: 15,000 tons of grain, 40,000 tons of sugar beets, 1,000 tons of spinning flax, 111,000 tons of milk, 6,600 tons of livestock and poultry and 76 million eggs. The plans for purchasing livestock products are being fulfilled successfully this year. Thus the plan and the socialist obligations adopted for the first half of the year, with regard to the sale of livestock and poultry to the state were fulfilled ahead of schedule.

The kolkhoz and sovkhos economies were strengthened substantially during the course of carrying out the decisions handed down during the May (1982) Plenum of the CPSU Central Committee. Last year the total profitability for their activities reached 29 percent, compared to only 9 percent in 1982. The total amount of kolkhoz and sovkhos profit amounted to 431.3 million rubles.

However, the results achieved constituted only the beginning. At the present time, importance is being attached to maintaining the proper tempo and the overall mood with regard to the practical solving of the tasks at hand, developing positive trends in a more active manner and making these trends more stable in nature. We are confronted with the task of achieving higher goals in the production of grain, industrial and other crops and in supplying the population with food products, particularly meat, milk, fruit and vegetables.

The CPSU Central Committee has emphasized the fact that one of the chief paths to be followed for achieving the goal outlined by the party is that of accelerating the conversion of agriculture over to the intensive paths of development and realizing a considerable increase in the return being realized from the production potential created at the kolkhozes and sovkhoses.

Unfortunately, efficient use is still not being made in all areas of the conditions created for strengthening the farm economies. There are many kolkhozes and sovkhoses throughout the republic where the productivity of the fields and farms is increasing very slowly, where the return from capital investments is low and where the equipment productivity is increasing at a weak rate.



The results achieved by different farms and entire rayons differ sharply from one another. For example, compared to Rīzhiškiy, Daugavpilskiy, Krāslavski, Rezeknenskiy, Ogrski, Yekabpilskiy and Līvēpayskiy rayons where gross agricultural output in 1983 increased by more than 15 percent compared to the average annual volume for the preceding five-year plan, in Balvski, Alūksnenskiy, Yelgavski and Talsinski rayons -- an increase of only 1-6 percent. and in Ludzenskiy Rayon production even decreased. Ventspilskiy, Tukumski, Gulbenskiy and Madonskiy rayons are lagging considerably behind the average republic rates for production growth in field crop husbandry products.

A large number of farms are systematically failing to cope with the state plans for the sale of agricultural products. For example, although for the republic as a whole the plan for selling meat to the state during the 1st quarter was fulfilled by 109 percent, still 220 farms, or 39 percent of their overall number, failed to cope with the plan. The Latvian SSR fulfilled its milk sales plan by 113 percent, while at the same time 102 farms, or 19 percent, also failed to cope with their plans. Meanwhile, 67 farms fulfilled their plans for livestock and poultry purchases by more than 150 percent and more than 40 kolkhozes and sovkhoses sold 40 percent more milk to the state than was called for in the plan.

By way of comparison, let us take two kolkhozes in Salduskiy Rayon -- Druva and Jaunautse. The former sold 68 percent more milk than the figure called for in the plan and the second -- only 72 percent of the plan. This was explained to a large degree by a low level of planning, under which unrealistic tasks were established deliberately for a number of farms, which does not motivate the collectives to fulfill and over-fulfill their plans and for others -- lowered plans, which also do not encourage the leaders, specialists and all workers on the farms to increase their production and sales of products to the state. It is obvious that such planning causes great harm and that the guilt for such a situation rests to a considerable degree with the planning and economic services of the rayon agroindustrial associations.

In the interest of eliminating the mentioned shortcomings, a need exists for raising the responsibility of the leaders with regard to carrying out the state deliveries in terms of all of the quantity and quality indicators and exercising strict control over the work of those farms and enterprises which are not coping with their planned tasks and socialist obligations and also stimulating highly skilled specialists of rayon agroindustrial associations, ministries and departments into thoroughly analyzing their activities and developing practical measures aimed at improving the situation.

Special attention is given in the country's Food Program to accelerating the development of grain production as the key problem with regard to increasing the production of food products. Extremely responsible tasks have been defined for the Latvian SSR in this regard: the average annual gross yield of grain in the republic must exceed 2 million tons. This requires a great amount of work on our part: despite the fact that grain production increased somewhat in 1983, the average annual grain yield during 3 years of this current five-year plan amounted to only 1,381,000 tons. This means that the plan was fulfilled by only 70 percent. As a result, the kolkhozes and sovkhoses are able to satisfy the needs of public animal husbandry for grain forage by only 50 percent. Deserving of condemnation is the position taken by those rayon party committees, rayon

executive committees and rayon agroindustrial associations which aligned themselves with farm leaders and specialists who reduced the grain crops in their planting structure, while deliberately aware of the fact that as a result of such action the given farms would not be able to ensure the gross production of grain as called for during the current five-year plan. Such practice must be terminated in a decisive manner.

A chief reserve for increasing the gross yields of grain is that of raising the yields through strict observance of all of the agrotechnical methods, encouraging the use of new and promising varieties and taking advantage of the experience accumulated by leading farms. We must achieve a considerable increase in the yields being obtained from each hectare of grain field and raise it to an average of 27-28 quintals for the republic. Last year, 32 sovkhoses and kolkhozes obtained more than 30 quintals per hectare and the kolkhozes Tervete, Padom'yu Latviya, Lachplesis and Straume -- more than 40 quintals of grain. Unfortunately, this same situation does not prevail in all areas: last year, 52 farms obtained less than 14 quintals of grain per hectare.

An extremely important task is that of using as intended everything grown on the grain fields. In this regard, the rayon party committees, the ministries of agriculture and the fruit and vegetable industry and the rayon agro-industrial associations must intensify their exactingness with regard to providing complete protection for the grain crop sowings and preventing their being used for other purposes.

In 1983, the kolkhozes and sovkhoses on the whole successfully coped with the production and sale of sugar beets and flax fiber to the state. Special attention must be given this year to the technical crops and to eliminating the indebtedness which developed in the case of these crops during the first two years of the five-year plan. Towards this end, it will be necessary to increase the yields for these crops and particularly on those farms which did not fulfill their sales plans for these crops in past years.

The state of affairs in potato production is arousing special concern. Over a period of 3 years the yields amounted to an average of only 128 quintals per hectare and the production plan was fulfilled by only 79 percent. The contrasts being noted in the results out on the potato plantations of various farms are indeed striking. Fine and stable yields are being obtained for example at kolkhozes and sovkhoses in Rizhskiy, Valmiyerskiy, Ogrskiy and a number of other rayons. Some farms are obtaining 300-400 quintals of tubers per hectare. This includes, for example, the kolkhozes Padom'yu Latviya, Rizhskiy, Lachplesis in Ogrskiy Rayon and Yaunays Komunars in Salduskiy Rayon. At the same time, the Zanya Kolkhoz in Salduskiy Rayon has for a number of years now been obtaining roughly 40-50 quintals of tubers from an area of 100 hectares -- the same amount as is being expended for seed. The same situation prevails at 47 farms throughout the republic, with only a meagre return being realized from the seed planted. Thus it comes as no surprise to learn that this crop, which could produce a large amount of profit, is truly a wasteful one for such farms.

The party organs must require the kolkhoz and sovkhos leaders and specialists to eliminate in a decisive manner the reasons for such low potato yields and achieve

an increase in the production of this important food and technical crop. The task consists of increasing the average potato yield by 30-35 quintals compared to last year and raising the overall yield to 170 quintals per hectare.

A requirement also exists for achieving an increase in the gross production of vegetables and expanding their assortment.

In March 1982, the Plenum of the Central Committee of the Communist Party of Latvia, after examining the question "Tasks of the Republic's Party Organization With Regard To Further Strengthening the Feed Base In Order to Increase the Production of Livestock Products in Light of the Decisions Handed Down During the 26th CPSU Congress," outlined measures directed towards improving the status of affairs in the production and procurement of feed. During the period which followed the Plenum, a great amount of work was carried out in connection with implementing its decisions and this produced perceptible results. Last year, for example, the plan for procuring coarse and succulent feed was fulfilled by 104 percent and 14.8 quintals of feed units were laid away for each standard head of cattle.

The present task consists of increasing feed production considerably, such that for the forthcoming winter 16 quintals of feed units will be procured per standard head of cattle, as called for in the socialist obligations. In addition, improvements must be realized in the quality and assortment of this feed. Towards this end, the kolkhoz and sovkhos specialists must define in a very serious manner the most rational structure for the crops, while making maximum and efficient use of each hectare of land and ensuring that the public herd is supplied with a well balanced ration. In this regard, serious attention must be given to raising still further the productivity of the cultivated pastures -- the chief source for cattle feed during the summer period and a very cheap feed at that: indeed the production cost for a feed unit of pasture grass is almost lower by a factor of three than hay or haylage. The yields from cultivated pastures must be raised to 3,500-4,000 units per hectare.

In order to increase the production of field crop husbandry products and raise the yields for all agricultural crops, it will be necessary to improve the use of the land. Land reclamation plays an important role in this regard. At the present time, there are 1,527,000 hectares of drained land throughout the republic -- 60 percent of all agricultural land. Each year the land reclamation specialists place in operation new systems and modernize existing land reclamation systems on an area in excess of 50,000 hectares. The kolkhozes and sovkhoses obtain two thirds of their overall volume of field crop husbandry products from reclaimed lands.

At the same time, we are not using our drained lands sufficiently effectively and, as a result, our republic has been criticized quite fairly in this regard.

The Central Committee of the Communist Party of Latvia has repeatedly underscored the need for improving the use of the potential afforded by reclaimed lands, raising their effectiveness and increasing the gross yields of agricultural crops being obtained from them. However the ministries of agriculture, the fruit and vegetable industry and land reclamation and water management have still not undertaken the proper measures in this regard. The

rayon party committees and the primary party organizations have not implemented adequate control over the carrying out of these instructions. The time is at hand for achieving a decisive improvement in this regard.

In increasing the return from drained areas, it must be remembered that true success can be achieved only if an entire complex of measures aimed at raising the fertility of the soils is carried out. In this regard the ministries of land reclamation and water management and agriculture must ensure that the construction plans for new systems and for the modernization of existing ones provide for applications of complete dosages of organic and mineral fertilizers and also lime materials, after which a certificate is issued for a guaranteed yield. The rayon associations of Latvsel'khozkhimiya, jointly with the kolkhozes and sovkhazes, must ensure the use of effective fertilization systems on the reclaimed lands and ensure that not less than 100 tons of organic fertilizer are applied to each newly developed hectare of drained land. Greater attention must also be given to maintaining the fertility of drained lands placed in operation earlier and to carrying out all of the agrotechnical and agrochemical measures recommended for bare fallow, that is, land recommended for capital repair work. Throughout the republic as a whole, it will be necessary to carry out this work in a volume of not less than 20,000 hectares.

There are many other shortcomings in the work concerned with raising the fertility of soils. By no means are scientifically sound farming systems being introduced into operations at all of the kolkhozes and in many instances the rules for proper agricultural practices are being violated. Crop rotation plans have not been mastered on a considerable number of farms. These shortcomings must be corrected as rapidly as possible.

Animal husbandry is a most important branch of agriculture in our republic. It accounts for almost 70 percent of the overall volume of agricultural output. This is why the development of this branch is constantly the object of attention by the party, soviet and economic organs. And today it can be stated confidently that this has produced positive results. In 1983 an increase took place in the production of the principal livestock products compared to the preceding year and also compared to the average annual level for the 10th Five-Year Plan. The plans for selling these products to the state were over-fulfilled. Moreover, the increase in production was achieved mainly through raising the productivity of the livestock.

This year the republic's kolkhozes and sovkhazes have been assigned the task of consolidating and developing still further the success already achieved. An average of not less than 3,000 kilograms of milk must be obtained from each cow and the average daily weight increase in cattle during fattening must be not less than 650 grams, hogs -- 450 grams and the sales weight for young cattle stock -- 400-420 kilograms and hogs -- 105 kilograms. The plans call for a considerable increase in the output of products per transitional head of livestock, unit of space in a facility, feed unit or per unit of labor expenditure.

The experience of leading farms reveals that such indicators for branch intensification are indeed realistic for us. Last year alone, 194 kolkhozes and sovkhazes obtained an average milk yield per cow of 3,000 kilograms, at 33

farms the milk yield exceeded 4,000 kilograms, the Tervete Kolkhoz obtained 5,762 kilograms and the Yaunpilsskiy Experimental Animal Husbandry Station -- 5,669 kilograms per cow. Forty-three kolkhozes and sovkhoses are producing more than 1,000 quintals of milk per 100 hectares of agricultural land. During 4 months of this current year, the average milk yield per cow increased by 77 kilograms compared to the same period for last year.

At the same time, the farms in a number of rayons, for example Ludzenskiy and Tsesisskiy rayons, are not utilizing fully the potential that is available for increasing the productivity of the dairy herd. Over a period of a number of years, 37 kolkhozes and sovkhoses throughout the republic have been obtaining an average annual milk yield per cow of less than 2,000 kilograms. The situations on these farms must be studied very thoroughly and corrective action taken.

One serious shortcoming in the development of dairy cattle husbandry is the fact that the ministries of agriculture and the fruit and vegetable industry, rayon agroindustrial associations and the kolkhozes and sovkhoses are not organizing properly the work concerned with reproduction of the herd and, as a result, only 65 percent of the replacement heifers on the republic's farms conform to the standard for the strain. Measures must be undertaken immediately to improve this work and the raising of replacement young stock on specialized farms should be expanded.

The conversion of milk production over to an industrial basis is producing fine results. For example, in 1983 an average of 3,017 kilograms of milk was obtained per cow at the large complexes -- 127 kilograms more than the average for farms throughout the republic. Other indicators here are also substantially better: output production costs and labor expenditures are lower. In the case of farms which are obtaining high milk yields, such as the kolkhozes Tervete, Adazhi, Yaunays Komunars and Nakotne, the Sigulda Scientific-Experimental Farm and the Lielplatonskaya Experimental Station, the complexes have become true enterprises of the industrial type, distinguished by a high culture of labor.

Unfortunately, we still have many dairy complexes where the productivity of the cows is low. Last year the average milk yield per cow at 13 of them (6 percent of the overall number) was less than 2,000 kilograms -- lower than the average for the farms. The complexes at the sovkhoses Lauderis, Nirza and Alsviki, at the Kolkhoz imeni Kirov in Gulbenskiy Rayon and others have been lagging behind for a considerable period of time.

A considerable amount of work remains to be carried out in connection with raising the quality and marketable value of the milk being sold. Last year the farms sold an average of 89 percent of their milk as being of 1st grade and refrigerated. The state pays an additional 10 rubles for each ton of such product. At the same time, some farms are selling low quality milk and thus are losing large sums of money. For example, last year the Vetsumi Sovkhoz was underpaid by more than 25,000 rubles because of this fact, the Kolkhoz imeni K. Marks in Liyepayskiy Rayon -- 17,500 and the Nautreni Sovkhoz -- approximately 18,000 rubles. Milk of especially low quality is being sold on farms in Rezeknenskiy Rayon, where 56 percent of the products being sold are non-refrigerated and in Madonskiy Rayon (55 percent). It is obvious that the

leaders and specialists at such kolkhozes and sovkhoses are unable to think in a thrifty manner, nor are they accustomed to making the necessary computations.

A definite amount of work has been carried out throughout the republic in connection with increasing the production of meat. Compared to the average annual level for the 10th Five-Year Plan, it increased by 12 percent last year. This was achieved for the most part as a result of the accelerated development of swine raising and its conversion over to an industrial basis.

In order to increase still further the production of meat, it will be necessary to place all available reserves in operation. This involves first of all an increase in the average daily weight increases in the animals through the improved use of feed and the establishment of better order on the farms. Here, just as in the other branches, the results vary greatly. For example, 165 farms are obtaining more than 600 grams in average daily weight increases during the fattening of cattle and 83 -- less than 350. There is still one reserve -- increasing the sales weight, especially that for young cattle stock. The average for the republic is 365 kilograms and yet Dobelskiy Rayon is selling young stock weighing in excess of 400 kilograms and Ludzenskiy Rayon -- 337, Tsesisskiy Rayon -- 324 and Balvskiy Rayon -- 320 kilograms. As you can see, the differences vary greatly. Meanwhile, an increase in the delivery weight of just 10 kilograms will supply the republic with an increase in meat of more than 4,500 tons.

One urgent task is that of improving the quality of the livestock being sold. Thus, throughout the republic as a whole, the number of bacon hogs sold constituted only 25 percent of their overall number. A considerable proportion of the poultry meat was of sub-standard quality.

In the interest of further developing animal husbandry operations, the agricultural organs, the republic's scientific institutes and the leaders and specialists of kolkhozes and sovkhoses are under an obligation to improve considerably their breeding and selection work. This work must be directed towards the breeding of animals which are distinguished by high productivity and which are adaptable to the industrial production technology.

And certainly, more concern must be displayed for the animal husbandry workers, with the best of the best workers being assigned to this branch. Planned improvements must be carried out in their work organization and conditions, in their daily routine and recreation conditions and their material and moral interest in the final results must be raised. The rayon party committees and the primary party organizations must improve the organizational and mass-political work being carried out among the livestock breeders and such work must be concentrated in the more important sectors -- directly at the complexes, on the farms and in the brigades. An important task is that of raising the efficiency of the socialist competition and achieving and maintaining a high level of labor discipline.

As already stated, a tremendous amount of production potential has been accumulated in agriculture and other branches of the agroindustrial complex. However, the process of production intensification cannot be reduced to a mere accumulation of capital. The chief concern here is raising the return from

capital, increasing the yield of products per unit of existing and newly arriving resources and achieving growth in farm income and profits.

The increases carried out recently in the purchase prices for agricultural products, the introduction of differentiated prices for livestock and milk by farm zones and the establishment of bonuses for adding on to the purchase prices for products sold to the state over and above the average annual level achieved during the 10th Five-Year Plan and for products sold to the state by low profitability and unprofitable farms have all served to promote a considerable increase in the profitability of agricultural production. At kolkhozes in the Latvian SSR, this profitability amounted to 29 percent and at sovkhoses -- 28 percent. All of the farms completed the year on a profitable basis. However the profit was extremely negligible at the sovkhoses Alsviki, Liyesma, Rushona, Nereta, Zauve and some others. The leaders of such farms and also certain rayon agroindustrial associations are not making full use of the favorable conditions extended to them for improving their economic work, they are not placing available reserves in operation, they are not displaying sufficient initiative and quite often, just as in the past, they are pinning their hopes on receiving additional assistance and support from the state.

During 1983 the production of certain types of agricultural products was unprofitable on many farms: grain -- at 48 percent of the overall number of kolkhozes and sovkhoses, sugar beets -- at 37 percent, potatoes -- at 50 percent, vegetables -- at 57 percent, the meat of cattle -- at 4 percent, pork -- at 22 percent, milk -- at 1 percent and eggs -- at 29 percent of the farms.

The existence of serious shortcomings in the economic work is borne out by the fact that the kolkhozes and sovkhoses in Aluksnenskiy, Tsesisskiy and Gulbenskiy rayons and also the farms of Latvptitseprom and Zveroprom suffered a sharp reduction in output-capital ratio compared to 1980.

There are some leaders who fear cost accounting procedures and are in no hurry to introduce them into operations. There have been many instances of these procedures being employed on a formal basis and with their basic principles being violated. On some farms, an attempt is made to cover expenses mainly by means of the state and bank credit. Rather large credits were required recently for example by the kolkhozes Ezertsyems, Kakava and Adazhi in Rizhskiy Rayon.

On many farms the expenses exceeded the income earned by them. This came about mainly as a result of irregular growth in wages, which exceeded the growth in labor productivity, the diversion of resources for various types of unplanned measures and other unjustified expenditures. Thus, at kolkhozes in Rizhskiy and Yelgavskiy rayons, labor productivity per average annual worker engaged in agricultural production remained at the 1982 level, while wages per man-day worked increased by 5 and 7 percent respectively. In 1983 and compared to 1982, the growth in wages at sovkhoses throughout the republic exceeded the growth in labor productivity by 2 percentage points. And at the sovkhoses Drusty in Tsesisskiy and Markalne in Aluksnenskiy rayons, for growth in earnings for one individual engaged in agriculture of 11 and 15 percent respectively, labor productivity decreased by 15 and 19 percent. Under modern conditions, management should never be carried out in this manner.

Life is advancing the requirement for introducing progressive forms for labor organization and wages into operations on a more extensive scale. The experience of the best kolkhozes and sovkhoses, brigades and farms has underscored the high effectiveness of the collective contract. When labor is organized in this manner, an individual is able to see the final goal more clearly, he senses the direct relationship existing between his labor and the payment for it and thus he performs in a more productive manner. This is why more serious attention must be given to the collective contract and why more intense and active interest must be displayed in its use in actual practice.

In work directed towards raising the production of all types of products, intensifying cost accounting procedures and introducing progressive forms for labor organization and wages, an increase must take place in the role played by the economic services of kolkhozes and sovkhoses and rayon agroindustrial associations. They must become true headquarters for intelligent and zealous management and deal very strictly with all types of extravagance and waste.

In solving the problems concerned with the intensification of agricultural production and carrying out the Food Program, a great role must be played by those enterprises and organizations which provide services for agriculture and process its products.

In recent years, a definite amount of work has been carried out throughout the republic in connection with the development of all branches of the agroindustrial complex. Thus in 1983 the production of machine building products for animal husbandry and feed production increased by 8 percent compared to the figure for 1980 and for the mixed feed industry -- an increase of 2.8 percent. Within the Goskomsel'khoztekhnika System, the sales volume for services for 3 years of the five-year plan increased by 18 percent and the scale for the technical servicing of powerful tractors, self-propelled machines and the equipment of livestock farms and the power engineering economy increased by 44 percent. Sugar production during the 3 year period increased by a factor of 2.7, whole milk products -- by 6.6 percent, goats -- by 6.5 percent and flax fabrics -- by 3.1 percent.

At the same time, many serious shortcomings are also being noted here. Some enterprises are not displaying the proper degree of responsibility with regard to the needs of the rural areas. For example, such plants as Avtoelektropribor, Latvremstanok, repair-mechanical, experimental-mechanical plant of the Ministry of Motor Vehicle Transport and Highways and the Seda Peat Plant are not carrying out the tasks for the production of spare parts for automobiles, tractors, combines and other agricultural machines. Many capabilities of processing enterprises are not being utilized fully and large quantities of low quality products are being produced.

Despite the fact that Goskomsel'khoztekhnika has recently achieved definite progress, nevertheless certain rayon associations and subunits belonging to this system are still performing in an unsatisfactory manner. At times, the quality of the work performed by them is low and the defects, in response to complaints, are corrected on a very tardy basis. At times, the equipment is not assembled completely or it is assembled in a low quality manner prior to sale. The level of all-round mechanization at many livestock farms continues to remain low.



Correct economic interrelationships with partners have not been organized in all areas.

The republic's Latvsel'khozkhimiya Association has accumulated a definite amount of positive experience. However, there are many serious shortcomings in this system. For example, it has still not converted over to the all-round agrochemical servicing of farms, although life has advanced just such a requirement. Only a weak amount of work is being carried out in connection with introducing progressive forms for labor organization and wages based upon the final result.

Goskomsel'khoztekhnika, Latvsel'khozkhimiya, the Ministry of Agriculture and the rayon agroindustrial associations must devote fixed attention to the further development of agroservis enterprises and ensure that their work volumes increase, especially at economically weak farms, with the cost of the services extended to them being lower than the work performed by the farms themselves using their own resources.

The agroservis enterprises must be distributed in a more rational manner. Experience has shown that the excessive centralization of all services in a rayon center is extremely unsound from an economic standpoint. This tends to raise the cost of the services; it complicates the organization of operations and it lowers sharply the productivity of the mechanisms. Guided by intra-departmental interests, other ministries and departments in the sphere of agroservis and the processing of agricultural products also tolerate excessive and unjustified production concentration and specialization.

Many shortcomings persist in the organization of agricultural product procurements. There have been many incidents of incorrect accounting between the procurement specialists with the kolkhozes and sovkhazes. The Ministry of Procurements, with its system of state inspectorates for controlling the quality of the agricultural products, is deserving of serious reproach. The workers in this system are not imposing proper exactingness with regard to the observance of the state standards or correct accounting procedures and at times they tolerate unjustified additions, eyewash and incorrect determinations of product quality.

A great amount of work remains to be carried out in connection with improving the preservation of the products grown. Large quantities of output are still being lost owing to poor transporting and storage conditions, a shortage of packaging materials and untimely processing. A considerable reserve in this regard is the conversion over to accepting livestock, poultry, milk, potatoes, fruit and berries directly at the kolkhozes and sovkhazes, with transport being provided by the procurement organizations. However, this progressive method is being introduced into operations in an extremely unsatisfactory manner. More attention must also be given to developing a network of storage bases which are in keeping with the modern requirements.

In connection with the conversion to intensive production methods, more importance is being attached to the role played by the agricultural science. Our scientists have many achievements to their credit. However, from the standpoint of a high level of exactingness, we are justified in imposing stern

complaints with regard to the work being performed by the agrarian science. Many problems in selection and seed production and in breeding work remain unsolved and certain problems associated with production intensification and improving the economic mechanism are not being developed adequately. Many scientific works are not finding practical use.

A great amount of attention must be devoted to improving capital construction in the rural areas. Here we have many bottlenecks. A shortage of construction materials is constantly being felt and only small quantities of these materials are being allocated for the carrying out of capital repairs on agricultural buildings and installations. The cost of construction is constantly increasing. We must devote a maximum amount of attention to eliminating these shortcomings and improving the status of affairs in rural construction.

The solutions for the tasks confronting agriculture and all branches of the agroindustrial complex are directly dependent upon raising the level of party management. Life is imposing higher requirements upon the rayon party committees and the primary party organizations, which constitute the political nucleus of the rural labor collectives. Much depends upon their activity and initiative.

A great amount of importance is attached in this regard to carrying out the aim of the CPSU Central Committee concerning a more clear delineation of the functions of the party, soviet and economic organs. The rayon party committees must not substitute for the agroindustrial associations, circumvent them in solving current economic problems or interfere in affairs which fall within the direct competence of farm specialists and leaders, since this will result in a reduction in the responsibility of the personnel for their assigned tasks. "The party committees must concern themselves with the economy" pointed out K.U. Chernenko, "and this means that they will concern themselves mainly with the people managing the economy." We must be guided strictly by this principle and persistently raise the responsibility of the personnel for their assigned tasks and for the final results of their work. A situation must be achieved wherein all of the decisive areas of agricultural production and the agroindustrial complex are manned by individuals who are politically mature and who possess organizational capabilities and necessarily -- a feeling for new progressive advances.

Improvements in the operational style and methods of the party, soviet and economic organs and also in the discipline, activity and responsibility of the personnel and labor collectives -- a necessary condition for successfully solving the tremendous tasks confronting us. There can be no doubt but that the agricultural workers are multiplying their efforts in the campaign to carry out the decisions handed down during the 26th CPSU Congress and subsequent plenums of the Central Committee, to implement the country's Food Program, to achieve success in carrying out the plans and socialist obligations for 1984 and, in this manner, to make a worthy contribution towards solving the most important task -- further improving the well-being of the Soviet people.

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## AGRO-ECONOMICS AND ORGANIZATION

### STRENGTHENING ECONOMIC EFFICIENCY OF APK IN MOLDAVIA

Kishinev KOMMUNIST MOLDAVII in Russian No 4, Apr 84 pp 51-54

[Article by A. Bondar', chief secretary for the Committee on APK Matters of the Presidium of the MSSR Council of Ministers; S. Pavenskiy, candidate of economic sciences and I. Morozov, candidate of economic sciences: "Some Questions on the Development of a Rayon's APK"]

[Text] In Moldavia, where the processes of agroindustrial integration and inter-farm cooperation have been developing successfully for more than two decades, a system of primary agroindustrial and other integrated formations (sovkhoz-plants, inter-farm enterprises and associations) has taken shape which has defined the specific nature of rayon integrated structures -- rayon APK's agroindustrial complexes. Distinct from the Baltic republics and the Georgian SSR -- pioneers in the organization of RAPO's rayon agroindustrial associations -- where the work of mainly individual farms and enterprises is coordinated, in our republic involving the organizational formation of rayon APK's consideration has been given to the existing structure of the agro-industrial complex, in which inter-farm cooperation and agroindustrial integration encompass all spheres of agricultural production.

This form of management has proven its vitality in actual practice. As is known, it has promoted the elimination of disproportions between individual branches of production, the extensive use of cost accounting principles and an improvement in coordinating the work of all economic systems on a territorial scale. The efficiency of agricultural production has been raised. In 1982, for example, the republic's agroindustrial complex as a whole produced 896 million rubles worth of profit and net income, or greater than the figure for 1980 by a factor of 1.8; the profit in branches of agricultural production increased by a factor of 2.3. Roughly 118,000 rubles worth of output was obtained per 100 hectares of agricultural land. This was the very first time that such an indicator was achieved -- it was the highest in the country.

And yet the results could have been considerably better if unity among the natural, technological and social-economic relationships in the APK had been carried out in a more complete manner. In a number of instances production specialization was replaced by administration specialization. In the decree of the CPSU Central Committee entitled "On the Work of the Central Committee of the Communist Party of Moldavia in Improving the Operational Style and Methods of Party Organizations in Light of the Decisions Handed Down during the

November (1982) Plenum of the CPSU Central Committee," it was noted quite fairly that the administrative structure continues to remain cumbersome. Parallelism and duplication exist in the production associations of various ministries and departments.

The 12th Plenum of the Central Committee of the Communist Party of Moldavia, which discussed the task of carrying out this decree of the CPSU Central Committee, approved measures which call for a reduction in the number of administrative elements, the elimination of parallelism in operations, the establishment of more efficient relationships among branch subunits on a rayon scale and a reduction in the size of the administrative staff. Special importance is being attached to stimulating the work of the rayon councils in connection with the problems of the agroindustrial complex, increasing the role they play in coordinating the branch production structures operating in the rayons, ensuring more complete use of material, labor and financial resources and suppressing use of the departmental approach when solving tasks common to a rayon and concerned with fulfilling the orders of the state for agricultural products.

It is known that great rights have been extended to the rayon councils for APK matters. They determine the planned indicators, distribute the capital investment limits, prepare the long-range plans for specialization and the disposition of production operations, create centralized funds for material incentives, social-cultural measures and housing construction and for production development and others. All of these complicated problems can be solved only in a business-like atmosphere characterized by complete understanding of the established tasks and the specific means for achieving the planned goals. Moreover, the growth in the scales of production is continually expanding the requirements being imposed upon a leader and pushing into the foreground those which earlier were not given proper attention. For example, let us take the introduction of collective forms for labor organization in all elements of the complex. On the whole, the brigade contract based upon cost accounting procedures is still not being employed on an extensive scale. The most typical shortcomings hindering the introduction of this progressive form -- violation of the principle of voluntariness when staffing brigades, insufficient information being provided to the personnel concerning the advantages of the new work method, the wage system and others. Is it really possible to expect to achieve success when the brigades are formed at times in accordance with the will of a farm leader, with the collective not being informed in advance regarding the work conditions, as happened for example at the Pobeda Sovkhoz-Plant in Bessarabskiy Rayon. At the Oktyabr' Sovkhoz-Plant in this same rayon, agreements were concluded not only with the brigade council but also with each worker separately, with the vineyard sectors being distributed among them. Nevertheless, it was still impossible to determine the final result, since all of the grapes harvested, just as in the past, went into an overall "pot" and the sectors were worked by different people, teams and brigades.

Such mistakes must be guarded against by the workers attached to a rayon's council for APK matters, which is responsible for controlling the introduction of new forms of labor organization and also for carrying out work concerned with explaining the advantages embodied in the brigade contract method. Experience indicates that if the rural workers are aware of how the wages are computed,

how the coefficient of labor participation is taken into account and if they are knowledgeable regarding other peculiarities in the work of a brigade collective, then they are more willing to work according to a new method. They understand that under such conditions a collective contract makes it possible to compare expenditures against income, it forces one to use each kopeck wisely and it reinforces the feeling of being a true master of the land. And the work proceeds considerably better in those areas where the rayon APK councils, in carrying out their work, are not bogged down by problems of secondary importance but rather take advantage of their rights boldly and completely and display initiative in achieving their goals. For example, one fifth of all of the field crop husbandry brigades of the vineyard and wine-making sub-complex of the sub-complex for the APK in Kantemirskiy Rayon is already working according to the new method and is being paid based upon the final results. Typically, the yield here is higher by 12.7 quintals per hectare and the production cost per quintal of output is lower by 1 ruble and 54 kopecks than at brigades where the new forms for labor organization have yet to be approved.

Problems often arise which should never be solved within the framework of individual rayons. This is conditioned by the peculiarities of agriculture and its territorial type of production organization. Such problems are of an inter-rayon nature and obviously require solutions at the zonal level of the republic's agroindustrial complex. It is known that there are four natural-economic zones in Moldavia: northern, southeastern, central and southern. The problems concerned with the interaction of branches and spheres of the APK and an optimum combination of territorial and branch planning should be solved within the borders of each of these zones. In the northern zone, for example, sugar beet production plays a dominant role. Problems arise here which are associated directly with such production: supplying the sugar plants with the needed raw materials in a timely manner, improving economic relationships between the beet suppliers and consumers and the manpower problem during the busy harvest season. Here a special role is played by the Council for APK Matters, which can organize the drawing up of long-term agreements between the processing enterprises and farms throughout the zone, agreements which would ensure the maneuvering and exchange of manpower.

The rayon APK councils are of great value with regard to improving economic relationships among the farms, resolving controversial problems among the partners in production and suppressing violations of planning discipline. At the present time, the kolkhozes and sovkhoses engaged in the production of beets bear almost no responsibility for the final product -- sugar -- and the plants do not always evaluate the raw materials in an objective manner at the time of acceptance. It is our opinion that all of these inter-rayon problems can be resolved with the aid of special purpose, all-round, scientific-technical and socio-economic programs. These programs should ideally be developed for each rayon APK with subsequent coordination with the zonal coordination council for APK matters. Such a council will not be an administrative superstructure but rather only a consultative organ, the work of which will involve the participation of representatives from science, production and the administrative staff.

Improvements in production relationships in the rural areas also assume improvements in the system of indicators for the economic efficiency of the APK.

A substantial shortcoming of this system lies in the fact that for the most part it orients the rayon APK's towards achieving intermediate production results. For example, such efficiency in viniculture and wine-making subunits is computed separately for agriculture and industry, despite the fact that grapes are the initial raw material for wine and an agroindustrial formation appears as a single economic organism. Why then should such dual accounting be maintained? There is no need for the agricultural and industrial subunits of integrated farms having their own systems for wages, planning indicators, economic incentives and so forth. On the whole, such a system reduces the effect expected from inter-branch integration. All of these problems persistently require the fixed attention of the councils for APK matters, the development of planning methods and an evaluation of economic efficiency in accordance with the final results of integrated production, with such an evaluation being based not upon the gross cost indicators, as is the case at the present time, but rather upon the normative-net output.

Let us turn to just such an example. For computing the final result (profit) from the gross output cost (for the wine), a deduction is made for the expenditures of the entire complex: agriculture - industry. The ratio of the final result to the production costs for the complex will make it possible to compute the profitability, but now of an integral nature. With regard to other products produced by a specialized viniculture complex, their efficiency is computed using the traditional method. Moreover, they will exert only a negligible influence on overall efficiency, since the industrial varieties of grapes and the output from wine-making occupy up to 80-90 percent of the gross output structure.

An important aspect of the work performed by a council for APK matters is that of improving economic relationships between enterprises of Goskomsel'khos-tekhnika on the one hand and kolkhozes and sovkhozes on the other. Up until recently, the enterprises of this organization remained profitable even when the farms which they serviced operated at a complete loss. Today the situation is changing radically, since the decree of the CPSU Central Committee and the USSR Council of Ministers entitled "Improvements in the Economic Relationships of Agriculture With Other Branches of the National Economy" calls for greater economic responsibility on the part of those organizations which service the kolkhozes and sovkhozes for the final results and for providing services for agriculture in a timely and high quality manner. This is being achieved owing to the fact that the increase in the production of agricultural products compared to the level achieved during the preceding 5 years is becoming the principal indicator for evaluating the work of enterprises of Sel'khoztekhnika, Sel'khozkhimiya and others.

The rayon APK's hold additional levers in their hands for exerting influence on the sphere which provides services for agriculture. Thus, whereas earlier the workers in this branch determined the list and volume of work to be carried out for the farms, today the rayon councils for APK matters are forming and approving all plans and also the recommendations for awarding bonuses to the collectives of Sel'khoztekhnika, Sel'khozkhimiya, land reclamation specialists and builders. Thus the rights of rayon APK's have been expanded and the task consists of making more complete use of these rights in the interest of raising the operational efficiency of a complex.

Finally, the rayon councils for APK matters have the prerogative of maneuvering their centralized funds, concentrating them on the chief projects and utilizing in a flexible manner the various integrated types of associations and enterprises within the framework of a complex. Actually, integrated associations and enterprises of different types exist at the present time even within the limits of the same branch (for example, viniculture and wine-making). The task of the rayon councils for APK matters consists of coordinating their actions and utilizing the advantages that are available, depending upon the local conditions and the specifics of the branch and the natural-economic zones.

Thus, with the appearance and development within the structure of the APK for the MSSR of qualitatively new elements and forms for organizing and administering integrated production -- rayon APK's -- a substantial increase has taken place in the level of production socialization in the rural areas and a real opportunity has appeared for achieving all-round improvements in the entire system of production relationships based upon a strengthening of economic contacts between branches, the planned solving of administrative conflicts in the APK, optimization of the administrative structure, the successful maneuvering of labor resources, equipment and financial resources and the orientation of all subunits of a complex towards the final results.

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## AGRO-ECONOMICS AND ORGANIZATION

### BELORUSSIAN AGROINDUSTRIAL OPERATIONS REVIEWED

Minsk SEL'SKAYA GAZETA in Russian 16 Sep 84 p 1

/Article by A. Stul'va, deputy chief of the Main Administration for Problems of the Agroindustrial Complex of the Ministry of Agriculture for the Belorussian SSR: "Examining the Root of the Problem"/

/Text/ Specialization and concentration in agricultural production improve the distribution of the production of agricultural products and they intensify inter-rayon and inter-farm division of labor. Earlier, for example, the production of flax products, sugar beets and marketable vegetables was carried out by farms in all of the republic's oblasts and rayons. Today the flax sowings are concentrated mainly in Vitebsk, Mogilev and Minsk oblasts and vegetable crops -- around large cities.

A network of specialized farms for the production of seed for grain and pulse crops and for perennial grasses has been created. And in 1983 these spetskhozes /specialized farms/ supplied those kolkhozes and sovkhoses engaged in the production of marketable grain with approximately 50 percent of the high grade seed used for grain crops. And the specialized seed farms of Belsortosem-ob'yedineniye produced 60 percent of the overall production volume of perennial grass seed.

Specialization is becoming more intense and the level of concentration in animal husbandry is being raised. The overall trend is characterized by a planned reduction in the number of marketable livestock branches at kolkhozes and sovkhoses and the consolidation in them of special type production efforts, the extensive development of branch specialization and, on this basis, the creation of highly specialized enterprises. Kolkhozes and sovkhoses, which carry out the production functions of inter-farm enterprises, have become the principal types and organizational forms for cooperation. There are 237 such formations in the republic, the structure of which includes 1,547 kolkhozes and 974 sovkhoses. Of the overall number of inter-farm enterprises and farms performing their functions, beef is being produced by 140, pork -- 30, honey -- 21, mutton and wool -- 3, the raising of non-calving young cows -- 74 and 14 are inter-farm formations specializing in the production of field crop husbandry products, including 12 engaged in the production of feed.

At the present time, milk is being produced and in the future it will also continue to be produced by a majority of the kolkhozes and sovkhoses. At the



same time, the level of concentration in dairy animal husbandry is constantly increasing as a result of the modernization of existing and the construction of new facilities. By the beginning of 1984, 41 complexes (each for 600 head or more) had been placed in operation throughout the republic.

Sheep raising is presently concentrated mainly at 125 specialized farms and inter-farm enterprises. Considerable successes have also been achieved in production specialization and concentration in the poultry production branch. At the present time, 60 enterprises of the BSSR Ptitseprom /Poultry Industry/ system, attached to 10 branch associations, are producing 92.5 percent of the eggs and 85.3 percent of the poultry meat.

As a rule, better use is made of productive capital and logistical, financial and labor resources at a majority of the inter-farm formations and livestock productivity is higher than at kolkhozes and sovkhozes. For example, in 1983 the average daily weight increases during maturing and fattening operations were as follows: young cattle stock -- 556 grams and hogs -- 393 grams and these figures were higher than the average republic indicators by 162 and 108 grams respectively. Compared to the republic's kolkhozes and sovkhozes, where an average of 69 percent of the animals sold to the state were in a high state of nourishment, at the spetskhozes -- 90 percent. At the latter, the expenditures for feed and labor per quintal of weight increase were lower.

For the republic as a whole, 176.7 million rubles worth of profit was earned last year from inter-farm activity, of which amount 110 million rubles were distributed among those farms participating in cooperation.

Many examples of the skilful utilization of the advantages offered by inter-farm cooperation could be cited. For example, in 1983 the Mir Sovkhoz-Combine in Baranovichskiy Rayon, which performs the functions of an inter-farm enterprise, sold more than 13,000 head of young cattle stock to the state at an average delivery weight of 495 kilograms.

All of the land (approximately 5,000 hectares) at the Mir Sovkhoz-Combine is being used for feed production. Sixty quintals of feed units are being obtained from each hectare of arable land here. In addition to obtaining feed for its own animals, the sovkhoz also delivers feed to other farms in the rayon.

Or let us take the Demekhi Sovkhoz in Rechitskiy Rayon, which also performs the functions of an inter-farm enterprise for the production of beef. In 1983 this farm sold approximately 10,000 head of young cattle stock to the state at an average delivery weight of 468 kilograms, or 56 percent of all beef sold by the rayon.

By what means was this achieved?

In conformity with a decision handed down by the RAPO /rayon agroindustrial association/ council with regard to raising the interest of farms participating in cooperation in increasing beef production, the plans for purchasing the beef were made available to the farms participating in cooperation, with the Demekhi Sovkhoz being the leading farm in terms of the initial weight and the weight increase obtained. The Demekhi Sovkhoz was released from the plans for

selling agricultural products to the state and all of its land area is being used for feed production.

Thus the organization of production operations at large enterprises of the industrial type, where the production capabilities have been mastered, a stable feed base created, a planning technology introduced and production-economic contacts and relationships clearly worked out, is characterized by a high level of economic efficiency. However, many spetskhozes, complexes and feed enterprises still have low production efficiency.

In evaluating the measures carried out in behalf of specialization and concentration of agricultural production based upon inter-farm cooperation, it bears mentioning that a number of shortcomings surfaced during implementation of the measures. First of all, complete use is still not being made of the principle of inter-farm division of labor or the reorganization on the mentioned basis of the production structure of the kolkhozes and sovkhozes, while taking into account the logistical base. The principal reasons for this -- inadequate planning for agricultural product procurements and long range plans for farm specialization which are not always well thought out.

Recently the problem concerned with the mastering of the planned capabilities of kolkhoz, inter-farm and state hog raising complexes was examined by the Board of the Minsel'khoz /Ministry of Agriculture/ for the BSSR, which noted that the production capabilities are not being mastered in a satisfactory manner. For example, of the republic's 86 hog raising enterprises of the industrial type, the planned indicators for number of animals have been mastered by 72 and the indicators for productivity and production and sales volumes -- by only 16 enterprises.

The principal reason for this low level in the mastering of planned capabilities was the absence of an efficient system for supplying the complexes with feed. At a majority of those inter-farm associations and kolkhozes having hog raising complexes, the program for creating a feed base, with specialization being taken into account, is not being carried out and insufficient use is being made of the feed resources of those farms participating in cooperation. All of this once again indicates that specialization cannot be reduced to a mere concentration of production, nor is the chief task one of only building large complexes while overlooking the need for creating a strong feed base. This task must be solved by means of specialization in feed production for farms, on the territory of which the complexes are located.

One vital problem concerned with the work of the various organizational forms for cooperative production during this modern stage is that of developing and utilizing economic interrelationships which will satisfy the interests of all those participating in cooperation. Here the most important instrument for economic control, under conditions imposed by developed inter-farm relationships, is that of accounting prices. In the majority of cases they conform to the specific production conditions and they raise the material interest of those participating in cooperation.

At the same time, the agricultural administrations of oblast executive committees and rayon executive committees are not adequately studying or introducing into

operations the positive experience that is available on the establishment of scientifically sound accounting prices. As a result, they are often approved in the absence of adequate economic justification and without proper thought being given to the specific natural-economic conditions.

In the system of measures for improving economic relationships, priority importance is attached to the strict observance of contractual relationships between cooperating farms. However, in many instances the contractual obligations are not being carried out completely and quite often the established schedules are being ignored. This is conditioned by an entire series of factors, including the absence for all practical purposes of material responsibility for a violation of contractual obligations in the agrarian sector of RAPO. The sanctions available for use in connection with the non-fulfillment of contracts calling for deliveries of young stock, feed and other products must be increased.

It also bears mentioning that the process of production specialization and concentration on an inter-farm basis is often held back as a result of insufficient attention being given to the modernization and expansion of existing facilities. During the 10th Five-Year Plan, modernization work was carried out on an average of less than two cow barns and one pigsty per farm throughout the republic. The limitations with regard to capital investments on the one hand and economic feasibility on the other dictate an urgent need for carrying out the modernization of existing farms on a more extensive scale. In the interest of raising the economic effectiveness in the use of capital investments and fixed productive capital, a considerable increase should ideally take place in the proportion of capital investments to be used for the modernization and expansion of existing livestock farms during the period of time remaining for the 11th Five-Year Plan.

The mentioned shortcomings resulted from the fact that the agricultural administrations of the oblast executive committees and rayon executive committees failed to devote proper attention to developing the process of inter-farm cooperation, they exercised only weak control over this process and they did not ensure complete observance of the basic principles of specialization and concentration in agricultural production based upon inter-farm cooperation and agroindustrial integration. Quite understandably, all of this is restraining the development of inter-farm cooperation. These negative factors must be eliminated by the administrative organs of RAPO.

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STRENGTHENING FINANCIAL OPERATIONS OF UNPROFITABLE ENTERPRISES

Moscow EKONOMIKA SEL'SKOGO KHOZYAYSTVA in Russian No 8, Aug 84 pp 61-65

[Article by Candidate of Economic Sciences S. Val'ter, deputy chief of the Central Financial Administration, and Candidate of Economic Sciences I. Kononov, chief of the Central Financial Administration (USSR Ministry of Agriculture): "Increase the Level of Financial and Economic Work in Agriculture"]

[Text] The strengthening of cost accounting relations is the most important direction of the improvement of the economic mechanism in agriculture.

Among the main attributes, which are characteristic of the cost accounting of an enterprise, are: the ability of the enterprise to cover by means of its own assets the expenses, which are connected with the replacement of the consumed material expenditures and a portion of the expenditures on the expansion of production and with the remuneration of labor; the significant involvement of the profit in the economic stimulation of the labor of workers.

Prior to the increase in 1983 of purchase prices in agriculture the proportion of the financial resources, which were formed on a cost accounting basis, decreased. In other words, in the amount of monetary assets, which agricultural enterprises had, the proportion of the receipts from sold products decreased. The worsening of the structure of the sources of financing of the expenditures on expanded reproduction was a result of this: the sources, which do not depend on the results of the economic operations of enterprises, and therefore inadequately influence the increase of the economic efficiency of production, began to predominate. Not always well thought-out decisions on the need for some investments or others were made locally, at times the allocated assets were not used assiduously enough. The wage fund at several farms was formed without consideration of the end results of activity and the financial results. There were instances when by means of the attraction of credit at the unprofitable farm the remuneration of labor was greater than at the profitable farm.

After the May (1982) CPSU Central Committee Plenum a more perfect model of cost accounting was formed for agriculture. First of all the conditions of the profitable operation of kolkhozes and sovkhoses, including those which specialize in the production of previously unprofitable products, were created

for farms with a low profitability as a result of the increase of the purchase prices for many types of products and the introduction of markups on them.

According to the results of work for 1983 kolkhozes, sovkhoses and interfarm enterprises derived a profit of 22.4 billion rubles. For the first time over a long period sovkhoses, kolkhozes and interfarm enterprises exceeded as a whole the established plans of the profit, the production of basic agricultural products became profitable. The financial position of agricultural enterprises grew stronger, their internal working capital increased, the reserves funds were significantly replenished. The interrelations of farms with the bank improved. Kolkhozes, for example, completely repaid all the short-term loans obtained in 1983.

As a result of the increase of the profitability of production the participation of kolkhozes and sovkhoses in the formation of the statewide fund of financial resources became more significant. Their payments to the budget increased from 915 million rubles in 1982 to 1,586,000,000 rubles in 1983.

As sovkhoses the structure of the sources of the financing of capital investments began to conform to a greater extent to the requirements. Thus, in 1983 they made 46 percent of the capital investments by means of their own assets, 42 percent by means of assets of the budget and 12 percent by means of long-term credit. In 1982 40 percent of the capital investments were made by means of internal sources, 47 percent by means of the budget and 13 percent by means of credit. With the increase in 1983 of the amount of assimilated capital investments by 477 million rubles the allocation of budget appropriations was decreased by 377 million rubles and that of long-term credits was decreased by 80 million rubles.

The ability of enterprises to make some investments or others already depends to a greater extent on the availability of a profit. Such instances, when in a number of sectors the use of the profit of sovkhoses for capital investments has not even been planned, are now hardly possible.

The stimulating function of the price has been strengthened: the more products that are produced with the increase of labor productivity and at least with the stabilization of production costs, the more impressively the profit and profitability increase. The mechanism of the material stimulation of the labor of workers, without the existence of which genuine cost accounting is inconceivable, is becoming more adjusted. The collective contract--a progressive form of the organization and remuneration of labor, which stimulates not only the increase of output, but also the economical use of the production resources being used--is contributing to the increase of the interdependence of the remuneration of labor with its end results.

The by and large positive results of the operation of kolkhozes and sovkhoses for 1983 attest to normal financial conditions for the expansion of production at agricultural enterprises. However, the previously existing shortcomings in the work of farms are especially coming to light under the new conditions. First of all the low level of financial work at some farms and agricultural

organs, which finds expression in the large overdue debt to the bank, suppliers and contractors, is disturbing.

The Uzbek SSR accounts for a significant portion of the overdue debt on loans of the State Bank, which sovkhozes and kolkhozes have had in recent years. In the republic there are a large number of unprofitable farms, many of which have completely lost their own working capital. The adverse weather conditions of recent years, which led to the nonfulfillment of the plan of the profit and the increase of the labor expenditures and the cost of the cultivation of the leading agricultural crop--cotton--had a substantial influence on the financial status of the farms.

Along with this there are also subjective factors. The analysis showed that the existence of the significant overdue debt to the State Bank is explained by the inadequately efficient work of farms and agricultural organs on the mobilization of internal financial resources and the observance of financial discipline. In Namangan Oblast, for example, at the beginning of 1983 the sovkhozes had diverted for the wrong purpose 8.7 million rubles of internal working capital, or 60 percent more than the preceding year, in connection with unplanned construction, the making of capital investments in the absence of planned financial sources and the unadjusted checking of the timeliness of settlements. Thus, at the Tadzhikistan Sovkhoz they built seven sheep pens which were not envisaged by the plan of capital construction. Each sheep pen cost the farm 16,000-18,000 rubles, for which the assets of basic activity were used. As a result of the violation of financial discipline at the farm economic difficulties arose, since a shortage of internal working capital in the amount of the diverted assets (about 116,000 rubles) formed, which did serious harm to the interrelations of the sovkhoz with the bank, suppliers and contractors.

In case of the exceeding of the annual plans of capital investments on projects, which are financed by means of internal work capital, short-term credits are granted to sovkhozes for the early completion of the planned projects with the repayment of the issued loans no later than 1 April of the following year. Some sovkhozes do not turn to such credit, which leads to the immobilization of their internal working capital and the unjustified worsening of the financial situation.

Conditions for the more efficient use of credit have been created in agriculture. Every normally operating enterprise in principle should constantly use bank loans. The prevailing purchase prices, which ensure the receipt of net income (a profit), induce them to this. On the other hand, the constant presence of bank credits in the economic turnover and the need for their repayment make it incumbent to manage assiduously. The effectiveness of credit resources in many ways depends on the place held by credit among other financial resources and on the mechanism of lending.

If a farm does not use credit, the normal financial conditions of activity are frequently upset. The sovkhozes of Namangan Oblast in 1980-1981 did not use credits as a source of the financing of capital investments, in 1982 the credit amounted in the indicated sources to only 3.6 percent.

One of the main directions of the improvement of financial and economic work in agriculture is connected with the optimization of the proportions of the distribution of kolkhoz revenues. Mandatory deductions from the gross income for the increase of fixed and working capital are envisaged by the model Charter of the Kolkhoz. The amount of the deductions is established annually with allowance made for the need for capital for ensuring the further increase of social production. Speaking at the All-Union Economic Conference on Problems of the Agroindustrial Complex, Member of the Politburo of the CPSU Central Committee and Secretary of the CPSU Central Committee M. S. Gorbachev noted: "Cost accounting also implies the more efficient, sound distribution of revenues" (PRAVDA 27 March 1984).

According to the results of 1983, the use of the gross income for the purposes of consumption increased by 19 percent and for the needs of accumulation by 3.1-fold as compared with the average level of 1981-1982. Kolkhozes deducted for the indivisible funds 6.5 billion rubles of net income, that is, 2.5-fold more than in 1981-1982 and for the replenishment of working capital-- 1.7 billion rubles, or 4.3-fold more.

In preceding years the distribution of gross income, which was noted produced during the year, was allowed in significant amounts. Thus, on the average during the years of the 10th Five-Year Plan the excess of the gross income being distributed over the derived gross income for kolkhozes as a whole came to 8 percent, in 1981-1982--20.5 percent. In 1983 this indicator decreased to 1.2 percent and pertained mainly to farms with a low profitability.

Farms and even individual rayons, in which they are not devoting attention to the solution of the problems of the optimum distribution of the gross income and the assurance of the further expansion of production, stand out against the overall favorable background. For example, at the kolkhozes of the Azerbaijan SSR the gross income in 1983 increased as against the average level of 1981-1982 by 12.6 million rubles, while the wage fund increased by 47.3 million rubles. As a result the net income decreased from 292 million rubles to 257 million rubles, while the deductions for the expansion of production increased by 40.6 million rubles.

At the Put' k kommunizmu Kolkhoz of Miloslavskiy Rayon of Ryazan Oblast the labor productivity in agriculture came with respect to the average data for the kolkhozes of the rayon to 82.7 percent in 1982 and 87.7 percent in 1983, the pay per man-day was respectively by years 1.2 percent higher and 3.2 percent lower. The wage fund exceeded the gross income in 1983 by 7.8 percent. At the economically strong Rodina Kolkhoz the labor productivity exceeded the average rayon labor productivity by 36.8 percent in 1982 and by 28.7 percent in 1983. The pay per man-day came during these years to 92 percent of the average for the rayon. The structure of production at both kolkhozes is close to the average rayon structure.

In Namangan Oblast of the Uzbek SSR Turakurganskiy Rayon is one of the financially lagging rayons. In 1983 this rayon accounted for more than 50 percent of the overdue debt on bank loans and more and one-third of the overdue debt on bills of suppliers and contractors for products and rendered services, which the kolkhozes of the oblast had.

Of the nine kolkhozes of the rayon seven or eight during 1980-1982 did not deduct revenues for the replenishment of the indivisible fund in the area of working capital. At a number of kolkhozes such deductions were not envisaged in the production and financial plans, although in fact they had less internal working capital than the planned amount, while the average level of profitability of several farms exceeded 20 percent (for example, at the Kolkhoz imeni XXV parts"yezda in 1982 the net income came to 1.08 million rubles with a profitability of 23.7 percent, at the Kolkhoz imeni K. Marx it came to 526,000 rubles with a profitability of 20.6 percent).

The deviations in the distribution of revenues are connected with the fact that the farms are not backing with monetary assets the vital measures on the further development of production. But one also encounters on occasion extremes of another type, when the necessity of the financing of expenditures or the creation of reserves of commodity stocks is not due to the needs of production. However, at the farm assets are spent unproductively for the indicated purposes.

Thus, at the Shark Yulduzi Kolkhoz of Turakurganskiy Rayon the internal working capital not only conforms to the planned need for it, but also exceeds it. However, the kolkhoz systematically plans and deducts assets for the indivisible fund for replenishing the working capital. As a result the internal working capital at the kolkhoz has reached such an amount that it covers even the seasonal expenditures and stocks. Therefore the kolkhoz does not use short-term credits of the bank. Such a situation attests to the obviously inefficient distribution and use of assets, since a significant portion of them during the periods of the decrease of basic agricultural operations is not involved in the turnover.

The internal working capital of the agricultural enterprise should cover mainly the minimal unreducible material stocks, the expenditures of unfinished production and the minimal surpluses of commodity production.

The shortcomings in the distribution by kolkhozes of the net revenue are of far from an isolated nature. Thus, at the Kolkhoz imeni Sverdlov of Uychinskiy Rayon of Namangan Oblast the need for working capital according to the 1982 plan came to 561,000 rubles. At the end of the year there were 801,000 rubles of it. Nevertheless in the plan for 1983 the kolkhozes again envisaged deductions from the net revenue in the amount of 279,000 rubles for the replenishment of the working capital.

At the Kolkhoz imeni 50-letiya Uzbekskoy SSR and the Kolkhoz imeni Kirov of Turakurganskiy Rayon in 1981-1982 a much larger portion of the net revenue than on the average for the rayon was used for the remuneration of labor. At the same time these farms accounted for the largest share of the debt on loans of the State Bank, which had not been repaid on time. At the same time the Kolkhoz imeni 50-letiya Uzbekskoy SSR in 1981-1982 did not make deductions from the net revenue for the indivisible fund in the area of fixed capital. The Kolkhoz imeni Kirov during 1980-1982 according to the plan should have deducted 615,000 rubles from the net revenue for the replenishment of the indivisible fund in the area of fixed capital, 175,000 rubles were actually



deducted, while 376,000 rubles more than required according to the plan were spent on capital investments. Of course, these outlays were made in violation of financial discipline at the expense of the working capital. Due to such violations the diversion of working capital for capital investments came at the kolkhoz to 784,000 rubles. Of course, the sharply increased debt on loans of the bank can be repaid only after several years in case of the radical improvement of financial discipline, the increase of the net revenue and its proper distribution.

The economic services of the rayon agroindustrial association should persistently and purposefully see to it that at every farm the derived revenues would be used in the interests of the further expansion of production, which is the material base of the increase of the well-being of kolkhoz farmers. At the kolkhozes, where the remuneration of labor has achieved the sovkhos level, it is necessary to carry out its subsequent increase only on the condition of a leading growth rate of labor productivity. At agricultural enterprises one should strive for the optimum distribution of revenues. This will make it possible to use more efficiently the available production potential and on the basis of its increase to ensure the dynamic growth of production and the increase of consumption and nonproduction accumulation among the workers of the countryside.

Daily concern about the increase of the profitability of production is the most important direction of the work of specialists of farms and rayon and oblast agroindustrial associations. The number of unprofitable sovkhoses and kolkhozes in 1983 as compared with 1982 decreased to less than one-fourth. It is necessary to investigate carefully the causes of the unprofitable operation of each farm. In this the role of the balance commissions of all levels, of which highly skilled personnel are members, is great. The balance commissions should be a unique school of management, which helps to find internal reserves at agricultural enterprises.

Of exceptionally great importance for the development of the economy of unprofitable farms and farms with a low profitability are the plans and measures on the strengthening of their economy. The workers of the rayon agroindustrial association are obliged to ensure the drafting and approval of plans of organizational and technical measures on the decrease of the product cost and the increase of the efficiency of agricultural production at farms with a low profitability and unprofitable farms. Specific steps on the increase of the level of the management of farming and animal husbandry, the increase of the yield of agricultural crops, the raising of the productivity of livestock and poultry, the strengthening of the material and technical base of farms, as well as the manning of all sections of production with well-trained managers and specialists should be envisaged in these plans. However, this has been done far from everywhere.

At the Miloslavskiy Rayon Agroindustrial Association of Ryazan Oblast, for example, there is no consolidated plan of the development of the economy of farms with a low profitability and unprofitable farms. Instead of this plans of measures, which have been drafted for each such farm, have been put together. Frequently they have been drawn up formally, it is difficult to check them, although for each measure the economic impact is indicated. Thus,

the following measures are outlined in the plan of the Avangard Sovkhoz: the improvement of the pedigreed composition of animals, the anti-erosion cultivation of soil, the root dressing of winter crops, the construction of mineral fertilizer warehouses and so on. At the same time specific steps on the introduction of internal cost accounting and the determination of the sections of production, which operate on the basis of a collective contract, have not been established.

Let us note that at the oblast level in the agroindustrial association the concept of the improvement of the economy of unprofitable farms has not been adequately studied. The plan of measures on the elimination of unprofitability and the increase of production efficiency at the farms of Ryazan Oblast contains a large number of different indicators for the period from 1976 to 1985. Within the plan there are production indicators and indicators of the availability of production resources and the intensification of their use, production efficiency, mechanization, the introduction of science and advanced know-how, the improvement of economic work, the decrease of unproductive expenditures and so on. Many of them have been elaborated by individual types of products, some are of a conventional, approximate nature. It is impossible according to the plan to outline the main measures which make it possible to bring the weak farms up to the level of the leading farms.

In our opinion, at every rayon and oblast agroindustrial association there should be an integral program of the strengthening of the economy of farms with a low profitability and unprofitable farms, which has been elaborated jointly by agricultural organs and scientific institutions.

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## AGRO-ECONOMICS AND ORGANIZATION

### IMPROVING KOLKHOZ MARKET TRADE IN KAZAKHSTAN

Alma-Ata SEL'SKOYE KHOZYAYSTVO KAZAKHSTANA in Russian No 7, Jul 84 pp 38-39

[Article by A. Kovalenko, instructor of the Trade Department of the Kazakh Communist Party Central Committee: "The Kolkhoz Market"]

[Text] In the set of measures on the accomplishment of the tasks of the Food Program the development of kolkhoz trade is of no small importance. By means of it additional agricultural products, which are not covered by centralized purchases, are committed to the total amount of food resources. It promotes first of all the more complete meeting of the needs of the population of cities and industrial centers for high-quality, fresh food products and the obliteration of the differences between the city and the countryside.

In our republic the volumes of sales of agricultural products at kolkhoz markets are steadily increasing. Last year they were increased to 435 million rubles and as compared with 1980 had increased by more than twofold.

The average annual volume of the sale of meat during the current five-year plan at the markets of the republic came to nearly 20,000 tons, or 50 percent more than the average annual volume during the 10th Five-Year Plan.

The material and technical base of kolkhoz trade has become significantly stronger. It now has 304 markets at its disposal. A policy of the construction of large covered markets, which are furnished with modern types of technological trade and refrigeration equipment, has been adopted. Such markets have been put into operation in Temirtau, Kzyl-Orda, Rudnyy, Dzhambul and Novyy Uzen. The construction of the largest livestock fodder market in Chimkent has been completed, more than 30 markets have been opened in the rayon centers and population centers. Covered markets are being built in Karaganda, Guryev, Kokchetav and Taldy-Kurgan and a livestock fodder market is being built in Alma-Ata, in the near future their construction will be started in Kustanay, Ust-Kamenogorsk and Pavlodar. In all 2 houses of the kolkhoz farmer have been put into operation, 58,000 m<sup>2</sup> of market grounds have been paved with asphalt, more than 80 units of refrigeration equipment, about 300 load trolleys, tens of motor vehicles, motor scooters and several tractors have been acquired. In all during the past years of the current five-year plan about 5 million rubles have been spend on construction, civic improvement and the acquisition of equipment and implements.

Much work is being performed by the Turkestan City Administration of Markets of Chimkent Oblast. Three markets are in operation here. During the 10th Five-Year Plan and 3 years of the current five-year plan they have constantly exceeded the financial plan. This is actively promoting the strengthening of the base. In the past 3 years alone the number of trade sites has increased by 1.8-fold. More than 29,000 m<sup>2</sup> of grounds have been paved with asphalt. The volume of sales of agricultural products last year increased by more than twofold as against 1980. The sale of basic livestock products increased appreciably at all the kolkhoz markets. Whereas in 1981 the population purchased 1,587 quintals of meat, last year it purchased 1,682 quintals, while the sale of milk during this period increased from 31,700 to 34,000 l. Much credit here belongs to Hero of Socialist Labor R. Isetov, chief of the Turkestan City Administration of Markets, who has been working in this system for nearly 30 years.

The Chardara Kolkhoz Market of this oblast and many markets of Kustanay Oblast also stand out with respect to the growth rate of the sale of agricultural products, civic improvement and the organization of customer service.

The experience of the operation of the kolkhoz market in Dzhabul has been related in the newspaper SOVETSKAYA TORGOVLYA. It has its own nonstaff inspectors for providing assistance in the timely delivery of agricultural products. At present there are about 20 of them. The necessary conditions for the selling and storage of products have been created at the market. The covered premises are designed for 500 trade sites. Cold and hot water, sewerage and ventilation are available here. Refrigerating rooms with a capacity of 225 tons, meat freezing rooms for 10 tons and warehouses with a capacity of 150 tons have been installed in the basement area. There are also pavilions which are leased to farms.

Last year the sale of agricultural products at the markets of Dzhabul came to nearly 33 million rubles. As compared with the preceding year this is 2.5 million rubles more.

During this time the bureau of trade services, at which 22 salespeople presently work, has improved its work. They sell meat, honey, grain fodder, root crops, melon crops, vegetables, fruits, dried fruits and berries. The bureau of trade services engages in the purchase and sale of agricultural products, which are turned over by kolkhoz farmers, sovkhos workers and other citizens. Whereas in 1982 1,700 suppliers were served through the bureau, last year this number increased by nearly fourfold. In this time the purchases of meat alone increased from 24 to 259 tons. The prices for products in the bureau of trade services are slightly lower than the average market prices, which is having a favorable effect on the decrease of retail prices. If some products are available in abundance, the workers of the bureau transport them for sale to the residential rayons of the city.

The setting up at the markets of bureaus of trade services, which help kolkhozes, as well as individual kolkhoz farmers, workers and employees to sell surpluses of agricultural products, was one of the important steps of the improvement of trade. The prices for the agricultural products, which are

sold through the bureaus of trade services, are 10-20 percent less than the average market prices, depending on the season.

At the beginning of this year 77 bureaus of trade services were in operation in the republic. The assortment of agricultural products being sold by them has increased by more than 10-fold. Last year alone 30,200 suppliers, 15 kolkhozes and 12 sovkhoses were served. This by itself freed about 45,000 man-days of rural workers. The work in the bureau of trade services of the central market of Alma-Ata has been organized rather well. Here they are studying the possibilities of the formation of surpluses of agricultural products at kolkhozes, at private subsidiary farms and horticultural and gardening associations. The workers of the market travel to the sites and conclude contracts with the farms on the delivery of products. The transportation division of the market deals with their delivery. In the past 3 years alone more than 1,500 tons of different products were delivered to the markets by the motor transport of the bureaus of trade services from the rayons of Alma-Ata and other southern oblasts of Kazakhstan and the neighboring rayons of the republics of Central Asia.

The experience of the operation of the Taldy-Kurgan Oblast Administration of Kolkhoz Markets merits endorsement. Here bureaus of trade services, which have been set up in all cities, are in operation at 10 of the 12 operating kolkhoz markets. The 20 nonstaff inspectors are providing appreciable assistance in the organization of trade. They perform individual work with the population and conclude contracts for the delivery of products from the private plots of citizens and with kolkhozes and societies of horticulturists, gardeners and fishermen. For example, the bureau of trade services of the Taldy-Kurgan City Market receives a significant portion of the products in accordance with contracts with kolkhozes, while the bureau of the Sarkand Market receives them in accordance with contracts with the local society of fishermen, from which about 20 tons of fresh fish are delivered annually. Now more than 10 percent of the products, which are delivered to the markets of the oblast, and nearly 30 percent of the meat are sold through the bureaus.

The prices for the products, which are sold through the bureau, are less than the market prices: for mutton--5 percent, beef--10 percent and pork--15 percent. Here the bureau constantly exceeds the plans on revenues and operates with a profit.

For the 11th Five-Year Plan it is planned to open additionally four bureaus in the affiliates of the Dzhangsugurov, Koktal and Burlyutobinskiy kolkhoz markets, to boost the purchase and sale of agricultural products by 1.5-fold and to increase the average annual commodity turnover to 2-2.5 million rubles.

The experience of the work of the Taldy-Kurgan workers was approved by the Kazakh SSR Ministry of Trade and was recommended for extensive dissemination.

The administrations of kolkhoz markets are striving to improve the forms of trade. Some of them annually organize vegetable bazaars and trade fairs. For example, a trade fair, in which sovkhoses, kolkhozes, enterprises of state trade and consumer cooperatives and subsidiary farms participated, was held

last year in Alma-Ata. About 4,000 tons of fruit and vegetable products of a wide assortment were sold to the population. The total volume of sold agricultural products during the period of the trade fair exceeded the 1982 results by ninefold, it noticeably influenced the decrease of market prices. Thus, the prices for tomatoes, cucumbers, green onions, beets, garlic and potatoes were 21-36 percent less, common onions and carrots--46-66 percent as against the corresponding period of the preceding year.

Public councils, of which representatives of labor collectives and public organizations are members, have been set up for the purposes of improving trade at kolkhoz markets, regulating prices and combating speculation.

The public councils recommend the maximum prices for basic agricultural products, jointly with workers of the markets organize the checking of the fulfillment of their recommendations and perform explanatory work among the traders. In case of large volumes of the delivery of some products or others and with allowance made for the demand of the population for them the prices are revised as needed.

The experience of the work of public councils in Alma-Ata was approved by the USSR State Committee for Prices and was recommended for introduction at the markets of other union republics.

It should be noted that the activity of the public councils contributed to the improvement of market trade. However, unfortunately, not all of them are having the proper influence on the dynamics of the sale of products and especially on the level of prices and the increase of the production of the products, which the population needs, by kolkhozes, state agricultural enterprises, as well as individual subsidiary farms.

If we take it as a whole, the network of bureaus of trade services of the republic is not coping with the functions assigned to it. The proportion of their commodity turnover for the present does not exceed 4 percent in the total turnover of kolkhoz markets. This is explained by the fact that in a number of oblasts, for example, Guryev, Kokchetav, North Kazakhstan, Ural and Tselinograd, there are only one or two such bureaus each, few of them have also been set up in Aktyubinsk and Karaganda oblasts.

The bureaus of trade services mainly confine themselves to the sale of products, which have been supplied by deliverers, and do not particularly burden themselves with worries about their delivery to the market. Commercial ties with suppliers have been poorly organized, extremely few contracts are concluded with kolkhozes and sovkhoses. In order to eliminate the existing shortcomings, it is necessary to broaden the functions of the bureaus, to streamline the staffs and to strengthen the material and technical base.

Specific steps on the increase of the production of meat, milk, potatoes, vegetables and fruits on the private plots of citizens are specified in the Basic Directions of USSR Economic and Social Development. It is deemed necessary to give them assistance in the acquisition of young animals, fodders, seeds and fertilizers. However, locally they frequently do not give such assistance. The possibilities of individual farms in the increase of the

production and sale of the products of farming and animal husbandry through commission trade and kolkhoz markets of the republic are being used far from completely. Many sovkhoses and kolkhozes are not fulfilling the assignments on the sale of young animals to the population and are inadequately supplying private plots with fodders, pastures and equipment. This is adversely affecting market trade. For example, the sale of meat at kolkhoz markets last years decreased by 3.5 percent as compared with 1981 and by 9 percent as against 1982.

The right to sell to consumer cooperatives and on kolkhoz markets up to 10 percent of the amount of state purchases of fruit and vegetable products (with the exception of onions, garlic and grapes), as well as those produced in excess of the established assignment, and with counting toward the fulfillment of the plan, has been granted to kolkhozes, sovkhoses and other agricultural enterprises by a decree of the CPSU Central Committee and the USSR Council of Ministers. Today the share of kolkhozes and sovkhoses in the total sales of the markets is negligible. Here the administrations of kolkhoz markets of the farms of East Kazakhstan, Kzyl-Orda, Kokchetav and Semipalatinsk oblasts should be reproached. The local soviets probably need to attach to the markets specific, and first of all economically profitable, specialized farms and to report to them the assignments on the volumes of sales of agricultural crops of a specific assortment.

Due to the lack of proper contacts between enterprises, organizations and the ministries of trade, agriculture and the fruit and vegetable industry the sales volumes at individual markets in monetary terms are increasing not due to the increase of the sale of products (in real, physical terms), but mainly due to the increase of prices. For example, in Karaganda Oblast the prices for common onions, fresh cabbage and sauerkraut, carrots and potatoes have increased appreciably as compared with 1970, while the volumes of the sale of these products in 1982-1983 had decreased by more than one-half. Such facts also exist in other oblasts of the republic. The above-named ministries, the Kazakh SSR Union of Consumers' Societies and their organs locally, which are called upon to constantly increase the food resources by means of their own production and the identification of additional resources among citizens for the more complete supply of cities and workers' settlements with fruit and vegetable products, will be able to correct this situation.

The material and technical base of kolkhoz markets, which does not meet everywhere the requirements of the day, is of considerable importance in the increase of the volumes of the sale of agricultural products. More than half of the oblast centers do not have covered markets, they do not exist in many rayon centers and large population centers. The problems of strengthening the material and technical base are being solved slowly in Aktyubinsk, Guryev, Dzhezkazgan, Kokchetav, Pavlodar and North Kazakhstan oblasts.

At the markets there are not enough trade and warehouse areas, there are no hotels and houses of kolkhoz farmers. The supply with warehouses and storage rooms comes to 21 percent, refrigeration rooms--86 percent, weighing instruments--less than 30 percent. Many markets have not been provided with conveniences, their grounds are not paved with asphalt, the pavilions are not heated. In Aktyubinsk Oblast in seven rayon centers there are no markets at

all. While at the operating ones pavilions have not been built and the minimum conditions for the sale and storage of agricultural products have not been created.

As we see, it is necessary to strengthen in every possible way the material and technical base of the kolkhoz markets. At the same time the republic Ministry of Trade is not assimilating completely the assets which are intended for their construction and provision with amenities. During 1981-1983 only 80 percent of them were used. The state of affairs is even worse in Dzhezkazgan, Kzyl-Orda, Mangyshlak, Semipalatinsk and several other oblasts.

Many oblast soviet executive committees and the republic ministries of agriculture and the fruit and vegetable industry have not monitored the progress of the fulfillment by kolkhozes and sovkhoses of the established assignment on the construction of firm stores, stalls and booths on the grounds of kolkhoz markets.

The further development of market trade is a vital task of the day. General Secretary of the CPSU Central Committee and Chairman of the Presidium of the USSR Supreme Soviet Comrade K. U. Chernenko at a meeting with workers of the Moscow Serp i molot Metallurgical Plant noted: "Frankly speaking, in a number of rayons for the present there are irregularities in trade in the products of animal husbandry. Much work on the improvement of the supply of the population with foodstuffs still lies ahead...." The solution of the problem to a certain extent also depends on how the work of the markets will be organized.

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## AGRICULTURAL MACHINERY AND EQUIPMENT

### SMALL EQUIPMENT NEEDS FOR PRIVATE PLOTS UNSATISFIED

Moscow SEL'SKAYA ZHIZN' in Russian 12 Jun 84 p 2

[Article by SEL'SKAYA ZHIZN' correspondents I. Germakovskiy, A. Zholobov, M. Zarayev, V. Legan'kov, V. Orlov and B. Svishchev: "Equipment for the Peasant Homestead": For related article see JPRS UAG-84-033, 27 Aug 84]

[Text] In the flow of readers' mail, which arrives daily at the editorial office of SEL'SKAYA ZHIZN', the letter inquiries and letter requests: Where is one to buy items of the technical equipment of the peasant farmstead, which are most essential in modern rural life? are invariably numerous.

"I have been trying for more than a year to purchase a domestic separator," Petr Davydovich Krivoslykov of Rostov Oblast reports to the editorial office. "It is useless." "I heard about a power mower. Where is one to buy it and how?" Nikolay Filippovich Kleshchenok, a disabled veteran from the Omsk village of Vyatka, is interested. A rural machine operator, who became accustomed in social production to diverse equipment and works himself to the bone mowing with a Lithuanian woman of discomfort; an old peasant woman, who can no longer stand to milk her cow by hand; a retiree, who cultivates his garden "with a shovel"--all of them need a mower, an electric milker, a motor block and other equipment.

Our industry produces many of these machines. But in what quantity? How are supply and demand balanced? Judging from the readers' mail, the gap between them is large. How large and why? The Central Union of Consumers' Cooperatives submitted to the editorial office the data of its orders to industry for basic items of small equipment and the indicators of the filling of these orders, while the correspondents of SEL'SKAYA ZHIZN' visited the plants which produce machines for the peasant homestead.

Let us begin with the separator, about which Petr Davydovich Krivoslykov writes. Last year 337,000 of these devices for the production of household butter were produced. But the Central Union of Consumers' Cooperatives requested 460,000. For this year both the order and the plans of the enterprises coincide--545,000. Hence, it is possible to hope that the demand will be met?

"We fear the other extreme," they stated at the diesel plant of the motor building association in the city of Andropov, one of the enterprises which produce along with their basic product Saturn-2 separators, "that we would

overstock. About 10 years ago we produced up to 400,000 of such units a year. At first they sold out completely, but then gradually began to pile up in the warehouses. The output had to be decreased to one-eighth. Now production is again being developed. In 1983 97,000 separators were produced. For 1984 the plan is 190,000. For next year it is 250,000."

The diesel builders have enough production capacities, they do not have to borrow the know-how of producing this item. At times, it is true, the suppliers of electric motors and plastic items let them down. And nevertheless the reality of the named figures does not raise doubts. The fears of the plant workers and their complaints with respect to the trade services of the interplay of the forces of demand are also legitimate. Demand must not simply be studied, but also foreseen in order to avoid the "swing" in the supply of the population with household goods.

Unfortunately, the prospects of the production of manual push mowers are not so bright. A single enterprise in the country: the plant of agricultural machines of the USSR Ministry of Machine Building for Animal Husbandry and Fodder Production, which is located in the suburban Moscow city of Klimovsk, for the present produces them. In 1983 it produced 3,000 KMP-1,0 units, and the same number are planned for this year. But the order of cooperative trade is 70,000. The reason for such a gap, they reported at the plant, is the shortage of production capacities.

"The main developer of the mower, the Main Special Design Bureau of the Lyubertsy Plant imeni Ukhtomskiy, has produced a new, more advanced model," V. N. Inozemtsev, director of the enterprise, related. "The replacement of cast iron parts with aluminum ones, which will make it possible to decrease the weight of the machine from 90 to 60 kg, and other innovations, which make it possible to make the mower more convenient and reliable in operation, are envisaged in it. According to the plan we should begin the production of this model starting with the second half of this year. And to produce twofold more of it than now. For this the renovation of the plant is being carried out, it is planned to build a new production building with an area of 8,000 m<sup>2</sup>."

Unfortunately, the construction has been greatly delayed. Last year the plan of construction and installation work was fulfilled by only 60 percent, and now the state of affairs is no better. The general contractor--the Moscow Repair and Construction Installation Administration of the RemstroyMontazh All-Union Association of the USSR Ministry of Machine Building for Animal Husbandry and Fodder Production--obviously is in no hurry to expedite the development of the plant. As a result its renovation is 2.5 years behind the planned deadline.

The next machine, which is an object of the keen interest of many thousands of peasant families, forces us to move from the small Moscow area enterprise to the famous Minsk Tractor Plant. Its collective has displayed initiative--it has developed and assimilated the production of the Belarus' MTZ-0,5 motor block, which is a two-wheel chassis with a 5-hp two-cycle carburetor engine. The maximum speed of the motor block is 9.5 km per hour. It is possible to haul a half-ton load in the cart. In addition to the cart, a cultivator, a plow, a harrow and a ridger are included in the set. All this costs 1,778 rubles.

According to the reports of users, the unit operates rather well. The plant has improved the transmission system and has put on cross-country tires. It is also planned to enlarge the range of implements. The Gomsel'mash Plant is completing the preproduction of mowers for the Minsk motor block. A potato planter and digger are being developed. So what is the delay for? It would seem that here it is, the long awaited unit, which makes it possible to mechanize labor on the plot. But the Minsk Tractor Plant produced in 1983 about 1,000 motor blocks, and, although now it plans to produce 3,000 and in 1985 5,000, the order of the Central Union of Consumers' Cooperatives is much greater--30,000.

The Minsk tractor builders are for the present the only ones in the country, who produce a motor block. Moreover, these machines are sold even in the small quantities, in which they are available, through the organizations of the Belorussian SSR Union of Consumers' Societies only to the rural population of Belorussia. And the remaining rural residents of the country? A special plant of small tractors exists in Kutaisi. A license was purchased abroad for the organization of the production of motor blocks at it. But the renovation of the enterprise, as SEL'SKAYA ZHIZN' has already written about this, has been dragged out, and the date of the output of the unit is again being postponed. True, the plants of the Ministry of the Aviation Industry are being involved in the solution of the problem, and one wants to believe that the production of the minitractor will be set up by combined efforts.

The need of the countryside for many other means of small-scale mechanization is also large. The figures in the columns of orders and deliveries coincide only for individual items of the range of small equipment, which is sold by the cooperative trade network. Here, for example, the Aktyubinsk'sel'mash Plant promised to produce this year as many electric shears as trade requested--13,000.

While various enterprises will produce electric pumps in the amount of only 60 percent of the need. Feed grinders--a half, while electric incubators--only one-tenth.

The demand for electric pumps is especially great. Annually 21 enterprises of the country produce in all 360,000-370,000 of them each, but this is obviously not enough. The reliability of the unit must be increased, the producers of the pump of the Agidel' make believe. It is possible to increase the output of this item, as they believe in the collective, by the specialization of production. For the developers of the Agidel' produce 35 other descriptions of consumer goods, including even toys made from tin. Is it not more expedient to concentrate efforts on the production of the scarcest items?

The machine builders from Rovno are also of the same opinion. The Rovnosel'mash Plant, in addition to various farm machines and devices, produces more than 3,000 fodder steamers, 7,000 root cutters and 12,000 feed boxes for the private plot. In all the range of consumer goods numbers 24 descriptions. Perhaps, one should decrease this list, having increased the volume of production of the same feed grinders, of which there is such an acute shortage in the countryside?

The trips to the enterprises, which produce means of mechanization for the private subsidiary sector, suggest the basic sources of reserves of the development of the production of this type of equipment. These reserves consist in the acceleration of the renovation of the Kutaisi Plant of Small Tractors, the Klimovsk Plant of Agricultural Machines and a number of other enterprises, in the improvement of the specialization of production and in the concentration of forces and resources on the output of the most important items which facilitate farmstead labor.

It is not that simple to achieve all this, especially if one considers that various machine building sectors are taking part in the production of such equipment. Moreover, for some it is a secondary, and not the basic product. Accordingly the responsibility for it is also less. It is important, however, to understand that the above-listed items facilitate the household labor of millions of people, the expenditures of which are still excessively great. For it is a question not of amusement, but of basic necessities, with which each of the 35 million families, which keep a private plot, should be adequately supplied. For the present our industry is producing only about 250 million rubles of these items a year, while the need, according to the calculations of cooperative trade, comes to 1.5-2 billion rubles annually. The duty of our industry, which produces goods for the people, is to reduce and then to eliminate this gap.

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## FORESTRY AND TIMBER

### TIMBER MINISTER BUSYGIN SPEAKS AT INTERNATIONAL EXHIBIT

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 11 Sep 84 p 1

/Interview with M. Busygin, USSR Minister of the Timber, Pulp and Paper and Wood Processing Industry by N. Il'inskaya; date and place not specified/

/Text/ The international Lesdrevmash-84 Exhibit opened in Moscow today. The leading firms, enterprises and organizations of more than 20 countries are displaying on its stands an entire arsenal of technical equipment for use in timber procurements and for the complete processing of wood into various types of products. The chairman of the exhibit's Organizational Committee and USSR Minister of the Timber, Pulp and Paper and Wood Processing Industry M. Busygin discusses the exhibits of this review and the trends reflected in it for the development of the forestry complex:

Our country accounts for one fourth of the earth's forests. This is one of our chief natural resources and one which we must utilize in a skilful, thrifty and efficient manner. Such is the task which our party and government have assigned to the workers attached to the country's forestry complex, which constitutes the timber, pulp and paper and wood processing industry.

Last year the question concerned with improving the use of the forests and the principal trends for developing the forestry complex was discussed during a meeting of the Politburo of the CPSU Central Committee. The large-scale changes outlined during this meeting are reflected in the Soviet section of the exhibit, the creation of which involved the participation of enterprises and organizations from more than 30 ministries and departments. The equipment models exhibited here were developed within the framework of a number of all-round special purpose scientific-technical programs, which called for the introduction of new equipment and systems for the all-round mechanization and extensive automation of production processes and the conversion over to a waste-free technology for the processing of wood.

The Soviet exposition includes equipment to be used for forest restoration work and for protecting forests. And there is good reason for this. In our country, priority importance is attached to protecting the environment and ensuring thrifty use of our natural resources. And the forests are no exception in this regard. Although the natural increase in the forests amounts

to roughly 900 million cubic meters and only approximately 400 million cubic meters are being procured annually, forest restoration work is nevertheless being carried out annually on an area of more than 2 million hectares. A great amount of attention is being given to protecting the forest tracts from fire and pests. The technical and biological means required for this purpose are presented in the Soviet section.

/Question/ Compared to previous reviews, how would you describe the principal trends in the development of forestry machine building?

/Answer/ Just as in other branches, the program aimed at intensification and raising labor productivity to the maximum possible degree is the chief trend in the development of the forestry complex. Towards this end, a conversion is being carried out from individual machines to the creation of systems which make it possible to mechanize completely the technological processes.

A system presented during the exhibit serves as an example of such equipment -- in addition to two felling and hauling LP-17A machines and an LP20B tree-trimming machine, the system also includes a timber loader and a timber carrier with a biaxial trailer. The family of PL-26 and LV-185 manipulators with detachable working implements is being displayed for the very first time at this exhibit. They make it possible to eliminate manual operations during the movement, sorting and bundling of the timber materials. These manipulators can be easily installed on forestry trucks and on caterpillar and wheeled tractors. Visitors to the exhibit undoubtedly will display a great amount of interest in the powerful forestry combines displayed on open platforms.

This trend is also readily apparent in the area of wood processing. In order to make complete use of the biomass -- from the butt end to the green crown -- it will be necessary to master complicated technological processes with electronic or microprocessor equipment control. For example, let us take the latest machines and equipment for the sawmill, wood processing and furniture production operations and also for standard wood housing construction. During the past few years, our machine building partners converted over from the production of single position equipment to the creation of automatic lines and sets of machines, which combine reliability and accuracy with a high level of complete processing of wood raw materials.

A special place was occupied at the exhibit by machines and equipment for the processing of low quality wood, the waste products of timber procurements and wood processing and by equipment for the mechanization of loading and unloading operations and the bundling and delivery of timber materials to the consumer by land and water transport means.

/Question/ Mikhail Ivanovich, none of us are able to live in the absence of books, newspapers, magazines or school textbooks. This means that there is a strong requirement for paper. What is being done to increase the production of paper?

/Answer/ Today our enterprises are producing large volumes of special printing and technical types of paper, wall-paper, packaging materials and other types of cardboard. Many types of our domestic paper are in no way inferior to the best international types. The production concentration is high. For example,

more than 95 percent of the country's newsprint is produced by such giants of the paper industry as the Balakhna, Kondopoga and Solikamsk combines. And one out of every four books is printed on paper obtained from paper-making machines at the Sytyvkar Timber Industry Complex.

I believe that the visitors are interested in the BP-45A wide-format paper-making machine that was developed by our domestic machine building for the production of bagging paper, the mass of which is 70-80 grams per square meter. Its maximum operating speed is 550 meters per minute and its productivity -- 320 tons of paper fabric daily.

/Question/ Along what lines is collaboration among the CEMA member states being developed today?

/Answer/ It is simply difficult to enumerate all of the trends. They include technological processes for waste-free production, units for the all-round mechanization of timber industry operations and highly productive units for the pulp and paper and wood processing industry and for producing plywood and fibre and chipboard panels. To this one can also add printed forms for decorative wallpaper, special glues, machines for the production of furniture and sporting goods -- skis, tennis rackets -- instruments and equipment for the automation of production control and for controlling the quality of the products. The results of the joint operations are on display during the exhibit.

By tradition, during the period of the exhibit, the specialists from the various countries can exchange experience and opinions within the framework of a scientific-technical symposium. All of this will promote an expansion in mutually advantageous scientific-technical and economic collaboration.

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## FORESTRY AND TIMBER

### FORESTRY OFFICIAL ON RESOURCE UTILIZATION

Moscow LESNAYA PROMYSHLENNOST' in Russian 15 Sep 84 pp 1-2

[Article by A.I. Zverev, chairman of the USSR State Committee for Forestry:  
"Zealous Management"]

[Excerpts] The day honoring forestry workers is not simply a professional holiday. It is celebrated by the entire Soviet nation -- the owner of the largest supplies of timber resources in the world. Indeed our country has hundreds of millions of hectares of forest plantings at its disposal. In addition to being a source for obtaining wood for the national economy, they also play a tremendous role as a most important natural factor.

Recently the Politburo of the CPSU Central Committee examined the question concerning improvements in the use of the forest raw material resources. Recommendations by the USSR Council of Ministers for further improving the working conditions and daily routine of forestry workers and retaining personnel in the timber industry have been approved. This was an important event in the lives of workers assigned to our branches -- and it served as evidence of the tireless concern being displayed by the party and government for protecting and multiplying the forest resources and ensuring their efficient utilization. It is also a manifestation of the attention being given to the needs of the timber industry and forestry workers.

Large-scale measures have been outlined for defining timber procurements more specifically and this will ensure a consolidation of the timber procurement enterprises and the efficient use of the timber-felling fund and wood waste materials. In addition, it will make it possible to carry out improvements in the labor organization and technology employed in timber procurement operations. The plans call for more effective development of the forest raw material resources in the European part of the USSR, an improvement in the organization and management of operations in cedar forests and more complete utilization of all of the forest resources.

Important measures for raising the efficiency of use of wood and the waste scraps obtained from wood include the construction and modernization of sawmill shops and shops for the production of parquet and DSP /wood laminates/ and also for the processing of wood from deciduous strains using a waste-free technology. Specialization must be ensured for individual timber procurement and wood-working enterprises and shops engaged in the production of crossties, mine



supports, poles for electric power lines and other timber products made from larch wood, in the regions where such wood is procured.

The forests constitute one of our national resources and thus a national concern is that of protecting and multiplying them. Decrees that have been adopted call for a single state approach to be employed in connection with the utilization of the forest raw material resources by all departments and organizations that work in the forests and take advantage of its gifts. The task has been assigned: to ensure coordination of the work being carried out by the timber industry and timber procurement enterprises when carrying out afforestation work in tree felling areas and also when protecting the forests against fires.

All of these tasks derive from the decisions handed down during the April (1984) Plenum of the CPSU Central Committee. These tasks are becoming of paramount importance in view of the conditions imposed by the multipurpose utilization of our forests.

An accounting summary for the state forestry fund as of 1 January 1983 revealed that over the previous five-year period, as a result of the implementation of measures concerned with afforestation work and improving protection of the forests and also forest utilization, increases took place in the area of forest plantings and in the supplies of wood. This was achieved as a result of tense and joint efforts by workers attached to the state forest protection service and forestry and timber industry workers and specialists. But one cannot overlook the fact that excessive cuttings in the tree felling areas, the carrying out of clear cuttings on an extensive scale, the low effectiveness of timber industry measures and the loss of regrowth following timber procurement operations constitute the principal reasons for the deterioration in the strain structure of the forests in Arkhangelsk, Vologda, Sverdlovsk, Kirov and other oblasts.

The experience of this current year has once again underscored the importance attached to strengthening business-like relationships and contact between the forestry workers on the one hand and their partners in the agroindustrial complex, the local soviets of people's deputies and workers attached to allied branches on the other, in work concerned with the efficient utilization, preservation and protection of the forests.

Improvements in the transporting and organization of timber deliveries require the further development of and improvements in inter-branch relationships. Importance is attached to ensuring the unconditional fulfillment of all economic agreements and obligations concerned with the delivery of timber products and also to preventing disruptions and interruptions in the supplying of wood for the national economy. Towards this end, efficient transport systems will be approved, an expansion of existing timber bases and the construction of new ones and also warehouses of a raised capacity for freight turnover have been carried out and measures have been implemented aimed at strengthening the timber unloading points, providing them with mechanization equipment and improving labor organization.

A number of additional measures have been outlined for retaining personnel in the timber industry and in forestry. The payment of a one time award for length of meritorious service is being established. In addition to the funds

allocated annually, permission has been granted to use standard wooden homes produced over and above the established plan for the purpose of improving the housing conditions for workers attached to timber procurement and timber industry enterprises.

Great tasks remain to be carried out in connection with improving the social-domestic and housing conditions for the workers. Almost one and a half million square meters of housing space and a considerable number of childrens' pre-school institutes, public health facilities and other installations are annually being placed in operation for the forestry workers. Constant concern is being displayed for the health and also for organizing recreation for the workers and their families. Last year, for example, social insurance funds were employed for treatment and recreation purposes by more than 600,000 manual and office workers and their children.

Important measures are being carried out aimed at reducing the amount of manual labor. To make work in the forest more easy, productive and attractive -- this is a political task.

The work collectives of our branches and particularly the timber procurement specialists, having fulfilled their 8 month plan for wood shipments, have established a fine base for carrying out the socialist obligations undertaken for 1984.

The forestry enterprises are successfully fulfilling their tasks for overall volume of industrial production and for the production of diverse types of forestry products. Compared to last year, the production of goods of a cultural-domestic and economic nature has increased by 10 percent. Lumber, wood packaging materials, clapboard and other items made from wood have all been produced in excess of the plan. The placing in operation of fixed capital has been ensured and the capital investment limit has been mastered completely. The plan for profit and labor productivity was over-fulfilled and production costs were lowered.

During 8 months of this current year, young forests were planted on an area of 840,000 hectares. Industrial plantations for pulp and paper enterprises are now being created in the European-Urals zone. New field-protective strips have been created and young forests have been planted in gullies, ravines, sandy areas and on other land deemed unsuitable for agriculture.

Workers attached to the timber, pulp and paper and wood working industry will be celebrating their branch holiday with considerable labor achievements. In carrying out the decisions handed down during the 26th CPSU Congress, they are consistently implementing measures aimed at improving the structure of production and attracting into economic use the resources obtained from deciduous strains and the waste scraps from timber procurement and wood working operations. The plan for the sale of products and for the production of round timber, cellulose and paper, including newsprint, was fulfilled. Various types of consumer goods in the amount of 116 million rubles worth were produced over and above the plan. Compared to the same period last year, the volume of product sales increased by 4.1 percent, the production of newsprint by 461 million square meters, chipboard panels by 336,000 cubic meters and standard

boxes of matches -- by 391,000. The entire increase in output was obtained as a result of growth in labor productivity. Based upon the use of wood waste scraps obtained from soft deciduous and low quality wood, 41.5 million cubic meters of effective lumber substitutes were produced: technological chips, plywood, cardboard, wood panels.

The work collectives of enterprises of the RSFSR Ministry of the Fuel Industry ensured fulfillment of the 8 month plan for output sales and for the production of lumber and goods of a cultural-domestic nature.

However, notwithstanding the availability of vast forest resources, the requirements of industry, construction and agriculture for timber products are still not being satisfied completely. The work being carried out by USSR Minlesbumprom /Ministry of the Timber, Pulp and Paper and Wood Processing Industry/ and USSR Gosleskhoz /State Committee for Forestry/ is characterized by a lack of harmony and the use of a uniform approach in the management of forestry affairs. In addition, proper attention is not being given to developing the capabilities for carrying out procurements and afforestation work, to the all-round mechanization of operations, to the installation of logging roads or to the carrying out of civic improvements in forestry settlements. The work concerned with improving the structure of production and also the technology for processing the timber is being carried out very slowly. The quantities of waste scraps left behind following wood processing and timber procurement operations are still considerable.

Today the development of forestry and the timber industry cannot be viewed apart from national problems. The development of the nonchernozem zone and improvements in agricultural production, the construction of the Baykal-Amur Trunkline and development of the resources of Siberia, the reclamation of lands and maintenance of the water balance, the production of diverse types of products from wood and improvements in the culture of production and daily routine -- all of these are interrelated. The modern management of forestry and timber procurement operations cannot be carried out in the absence of consideration of the natural-climatic and socio-economic factors. Yesterday we tolerated concentrated tree fellings, loose floating and the construction of log roads. Today these are all viewed as being phenomena which are alien to the modern level of technical progress and scientific and engineering development. We must develop more modern means and methods for felling trees and for carrying out afforestation work in the various regions. To follow old procedures -- is equivalent to rejecting the efficient organization of production operations and an efficient economy.

There are many factors which exert an adverse effect on our forests. And it is easy to simply state that they are inevitable under intensive management conditions. But this is not so. When carrying out forestry work, the timber procurement specialists and forestry workers are obligated to employ and follow the most progressive and economic technology, to defend the laws and rules governing the use of forests and beyond any doubt to restore felled areas.

On the eve of the holiday, the extensively deployed socialist competition has enabled many collectives to fulfill their socialist obligations. The leaders in the competition continue to be those collectives of enterprises and

associations which were awarded challenge red banners of the CPSU Central Committee, the USSR Council of Ministers, the AUCCTU and the Komsomol Central Committee, based upon the results of the 1983 socialist competition. Included among them are the collectives of the Balakhna Pulp and Paper Combine, the Vologda Rafting Office, the Gatchina Furniture Combine, the Viysnurk Wood Processing Combine, the Kemerovomebel' Association, the Kirovakan Furniture Association, the Kodry Furniture Wood Processing Combine, the Moscow Voskhod Scientific Production Association, the Vil'nyus Furniture Combine, the Moscow Furniture Assembly Combine No. 1, the Syktyvkar Timber Industry Complex, the Belka Match Factory, the Cherven lespromkhoz /timber industry farm/, the Central Scientific Research Institute of Paper, the Yegorshinskiy mekhleskhoz in Sverdlov Oblast, the Ryapina Experimental Demonstration Leskhoz /forestry farm/ in the Estonian SSR, the Sabinskiy Lespromkhoz in the Tatar ASSR, the Bobryusk Experimental Leskhoz in the Belorussian SSR, the Zolochev Leskhoz in the Ukrainian SSR and the Konakovo Mekhleskhoz in Kalinin Oblast.

At the beginning of the year, the all-union Sverdlesprom, Irkutsklesprom and Tyumen'lesprom associations launched a socialist competition to prepare in a worthy manner for the 114th anniversary of the birth of V.I. Lenin and to achieve 50 percent of the wood volume planned for the year by 22 April. The competition made it possible to ensure the shipping of 106.2 million cubic meters of timber by that date. The initiators of the competition must maintain their present work rates right up until the holiday for forestry workers. shock work by the timber procurement specialists is valued very highly by the party and government.

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